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ABSTRACT

The basic purpose of this study was to find ways and means to improve the educational system of the Seventh Day Adventist church and to render practical information to other church groups and public institutions. Utilizing data collected via mail or personal contact with service centers, the media phases of cooperative and/or regional programs were emphasized. Three broad areas of concern were explored: (1) the sociological, philosophical, and demographic features of American life in the context of history and political science as related to general educational trends and the cooperative regional approach; (2) the rationale, purpose, organization, and the financial and physical aspects of cooperative regional centers; (3) various denominational needs and solutions via cooperative action. Among the specific areas explored were: curricular services, administrative services, personnel services, pupil personnel services and special education, mobile services, library programs and services, audiovisual programs and services, telecommunications, and instructional and educational television. Confined generally to the U.S., the study developed specific recommendations for Michigan, Northern California, and Nebraska. Detailed recommendations focusing on economic utilization of resources and organic organization were developed for the Seventh Day Adventist church. (JC)

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THE PROBLEM OF REGIONAL EDUCATIONAL SERVICE CENTERS IN THE UNITED STATES OF AMERICA WITH SPECIAL REFERENCE TO THE SEVENTH-DAY ADVENTIST SCHOOL SYSTEM

A Descriptive Study

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
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SUMMARY

The various social, historical, economic and demographic changes in America have brought on changes in education. Education has become big business and costs have grown on all fronts. The curriculum has expanded, instruction has changed, special education has come to its own and multi-media has become a hub of education. In addition specialized skills are required in administration, instruction and educational services.

Schools of all sizes and in all locations are requiring quality programs. How is this to be done when finances, personnel, facilities and materials are not available? With the exponential growth of education and its accouterments better ways must be found to utilize all resources to their fullest. One promising approach has been made available via the cooperative/regional concept.

Virtually every state has some program utilizing this approach and half of them either have or are planning a formal organization of regional programs. Regional approaches are used in all fields and within education there are scores of types of cooperative programs in instructional television, library processing centers, special education, etc. Over 1 000 collegiate consortia exist. The idea has been tried and is growing.

Regional educational service centers, which are the most comprehensive cooperative type of program are either voluntary or

part of a total program, usually on a state-wide basis. The center may actually offer services, contract for them or coordinate agencies. They are usually financed by taxes, federal monies and member fees. Typically they serve an area within an hour's driving time. The trend is for them to be service rather than administratively oriented. Administratively they are on the intermediate level, usually multi-county in scope.

Though the services of the centers vary according to regional needs, the media component generally is a key feature, if not the sole service, however, most centers offer a variety of services such as pupil personnel, special education, administrative, curricular, in-service education, and vocational education.

In denominational programs the concept is just evolving with some regional centers being operated by single denominations while others are ecumenical. Most of these units are in religious education and serve all areas of the church.

The Seventh-day Adventist denomination operates the third largest church-operated system in North America. It is conservative in theology and educational philosophy. The church is considered to be well-organized with the requisites for implementing the basic concept of cooperative/regional action. Currently there is evidence of some cooperative action in higher education, pool purchasing and religious-centered audiovisual production.

Inasmuch as the church is more centralized in its organization and in that it is organized on regional lines in some areas already, the recommendations of this paper should have good potential. The human factors are limiting. Nevertheless it is recommended that study be given to implementing those phases of the cooperative/ regional concept as noted. There are less than 100 000 pupils and students in the church institutions, thus the educational service allocations would of needs be on many levels with some regions being multi-state for some services and even national in some cases.

Much of what is outlined would entail some reorganization and administrative planning rather than vast new budgets. The program would hopefully increase utilization of all resources and make available a wider base of resources for all, not only to the schools but all church institutions. A closer-knit organization and closer ties among groups would be a hopeful by-product.

CHAPTER 1

INTRODUCTION

1. The problem

A. General situation

Our society is in a constant state of flux and inasmuch as the schools are an instrument of society, they reflect this change. The curriculum is under continuous study and ramification. Instructional practices reflect these changing patterns and quite obviously administration follows suit in accommodating the program to the changing goals and ensuing programs. Within the last decade the media field has undergone tremendous growth as the total instructional program has upset traditional patterns. Educational facility planning reflects the progressive movements as well as the inevitable change.

The increments in knowledge have been astronomical in scope. As might be expected, the schools have been putting forth tremendous effort to cope with the strides of progress. Facilities and materials have come to the fore as important aspects of the learning process. Many campus plans reflect this emphasis in placing learning centers and media centers at the hub of the school. Laboratories and discovery facilities are planned features of the new school.

Sociologically America has made many changes in its life style. Materialistic thinking appears to have the key to many minds with the religious life generally making drastic changes to accommodate the new thinking and social mode of life. Some feel that a deterioration has come to American life with the increased use of drugs, a lessened sense of right and wrong and a virtual mania for pleasure. For whatever the analysis, life has changed and living is at a faster pace. Schools reflect each facet of the society of which they are a part.

From a demographic standpoint the nation is becoming an urban society. Though agriculture continues with great strength, it has demanded less personnel as automation has come to the farm. The exodus continues to urban areas, though the inner city has deteriorated and the suburban areas have grown. At the same time the rural school is more and more a consolidated school, wherever possible. Inner city schools have the numbers for ample programs but have other problems. The suburban growth has favored the schools in the suburbs, thus it is here that much which is innovative is occurring.

Within the last two decades critics have been making major comment regarding the failures of American education. During the fifties as the Soviet Union made major space strides, much adieu was apparent. It was also about this time that the great financial impetus to education came via federal monies and the accompanying criteria to spur on innovation. Without doubt education has made major growth during the last decade or two.

During the last few years a cloud has been observed in inflationary price increases. Increases of 10 and 20 per cent in a year have occurred. Additional financial problems have arrived as teachers have demanded greater salaries commensurate with their skills. There is little doubt but that many manufacturers have bilked the public in overcharging in many fields including educational media. Innovative programs have brought increased spending.

With the increased social problems facing the country, costs have risen. Racial tensions have brought on increased financial outlays for inner city schools; bussing programs have been utilized and of course increased policing and vandalism costs.

The various issues mentioned have been part of the reason for the citizen interest in the outcomes of education. As might be expected the tax-payer is revolting at the ever-increasing tax demands. Many bond issues have been voted down. Concurrently an interest has been shown in assessment programs to find out just what is being accomplished. Various forms of programs are being used to increase the educational outcomes, the product of education: educated youth. Most sincere people are interested in education; however, many feel, evidently, that the product is not always commensurate with the financial outlay.

B. Philosophical phase

The official pronouncements as to the goals of education in this country have been numerous and doubtless profound. Most any text on the history and philosophy of education will cite various of these documents.

The American Association of School Administrators (A.A.S.A.) gives a brief introduction as to what American education is, and to what it aspires.

1. The primary purpose of education is to develop in each individual person the fullest participation in the American way of life.
2. Universal free education is to be made available to all, irregardless of race, creed, or color in the interests of citizenship, peace and world understanding.
3. The American democratic way of life is to be taught via the provision of equal opportunities and by teaching how America enables him to choose and plan (A2, 22).

In this document is seen the aspiration for quality education for all peoples within the context of a democratic nation. Most educational bodies have incorporated the ideals of the American way of life. The schools are a reflection of society for they are operated by that society. Though not all philosophical ideals are fully implemented, yet aspirations are written down with the hope that all involved in the educational program can aim towards the sociological and political status of fulfillment. Most agree that the schools are at the heart of a democratic form of life.

Several of the Nine Imperatives of the A.A.S.A. are geared to the social and political phases of life, "To strengthen the moral fiber of society. . . . To keep democracy working. . . . To work with other peoples of the world for human betterment" (A10, i). Similarly the City of Los Angeles lists seven major purposes of education, of which several are within this area, namely civic responsibility, values, and human relations (L29, 5). This is illustrative of the philosophical basis of American education and its strong base of social and political betterment. In order for the society of this nation to survive the youth must be educated in democratic thinking, in developing a sense of values, in assuming his place in society as an upright citizen and in being a social being able to have proper rapport with his fellow man, no matter who he or she may be.

As high and noble as these philosophical pronouncements, and as vigorous and sincere the efforts of educators to develop these elements within each child, it is quite obvious to any who realistically appraise current American life that something is obviously missing. Without doubt, the moral decadence that is all too prevalent and the political issues that plague the nation reflect the need for considerable self-evaluation on all levels of American thought.

Most of the various educational philosophies contain considerations for the development of vocational and avocational skills. For instance Michigan, in its Common Goals, covers the area of career preparation and vocational and technical skills (M33). Whereas in the recent past much emphasis has been upon the promising pupils and the preparation of the professionals, current trends are putting forth much effort in the education of the less promising, the culturally deprived, the minority pupils and those in the trades in general.

Of course philosophy and action, goals and achievement, are not one and the same at this juncture in American history and no dobut never will be completely reached. Discontent and unemployment are relatively common. Many are not receiving the outputs of an educational system that will do them the good that has been promised them in the lofty goals of education and society as a whole.

As wages are increased and the work week becomes shorter, the typical American has more time for leisure than in the past. Number eight of the Nine Imperatives lists the need "to make the best use of leisure time (A10, i). The worthy use of leisure is frequently noted in goals of education. Adult education programs are endeavoring to bridge this gap between "goals" and "achievement." With the youth, the church, the school, the recreation department of the city and many other agencies are endeavoring to meet this goal. To some extent this is not being achieved, evidently, for the delinquency rate is higher than in the past. It is common knowledge that idle hands get into trouble. This is a problem area also. Much is being done, but much more needs to be done. Much has been written about boredom and its part in many of America's current problems. Educators need to objectively look at the curriculum in the light of this area.

Though all facets of educational philosophy cannot be evaluated in this paper, one major area of concern is the development of the individual, as a unique person. In this age of mass communication, mass production, automation and kindred movements, the individual has almost been lost. Past goals of education have noted the need for the development of the person, his creativity, his talents, his personality and other aspects of the person (L29, 5; H15, 8-15). Currently there is much emphasis upon the individual and individual differences. More and more there is a recognization that each person has unique needs and unique contributions to make. The Association for Supervision and Curriculum Development has issued 21 goals or guidelines for educators. Among these is noted the need to have responsibility and concern for self-concept and personality development. There must be a demonstration of respect for the individual and recognize as well as provide for individual differences. They again state that there must be a responsiveness to the needs of children that arise from the home and the community environment. The document continues to emphasize various aims that must be met in order to achieve that which the child needs as an individual (H15).

The literature as a whole is replete with various facets of the problems of the individual in a mass society. Philosophical views are taking into account the person, rather than hordes of pupils as "classes." The Common Goals of Michigan Education puts it this way:

> This document is grounded in the belief that the success of an educational system must be measured by the degree to which the educational development of the students reflects the potentials of those students as individuals regardless of race, sex, religion, or socioeconomic or ethnic background (M33, 1).

As was previously noted the urban increments have been stupendous. Even rural schools are consolidating, however, the price has frequently been the loss of individuality. The trends definitely indicate a recognition of the problem, but the philosophical views have considerable need for further implementation. Large schools, large classes, large this and that are difficult to manage.

In a sense progress has brought on problems that have become virtually as difficult of solution as the original problems that brought on the progress.

The educators of the religiously operated school have no quarrel with the philosophers of the public school, generally speaking. For the most part they heartily agree with the provisions and goals, other than where they become athiestic in basis, as is the case with certain philosophers. As will be brought out later in this paper, the denominationally run schools do go a step further in their philosophy by the inclusion of the spiritual facets of learning. Supernaturalism is characteristic of most religiously operated schools and is so espoused without apologies. The state of affairs in many schools of the land today give some indication of the need for "that something extra."

The problems found in American schools today are well known by all serious observers. It is very possible that much of which is bothering the schools of the nation is of a basically philosophical nature. Though the goals are noteworthy in virtually all cases, those who are supposedly committed to their implementation are all too often not much more advanced than those they are attempting to influence. Additionally the official philosophy deletes the element of the supernatural and all that it connotes. In a sense a certain amount of potential trouble is inherent by this deletion, which must be in a public school system which serves all classes of people, including the non-religious.

The religious educator must be aware of the problems of the schools at large. This includes the philosophical viewpoints as well as the implementation of those goals and aims. There must be an awareness of the faults of this system, both inherent and those brought on by society. Similarly there must be a comparison with the church operations and a fair analysis made. The evaluation must include the philosophical foundations and the outcomes of those views.

C. Needs and problem areas in American education

Schools generally have critics during any era and similarly the schools always have certain needs and weak areas. Though opinion varies as to what these areas are at present, there is considerable agreement about some of them. Most of these problem pockets are rather typical of all schools in varying degrees.

The financial strain always has been a problem to face, however, in recent times this has become more acute because of inflation, dollar devaluation, increased salaries among staff, skyrocketing construction costs, innovative programs and increased use of media, as well as other factors. Certain areas have been receiving larger sums of money than in the past, such as education for minority groups, special education for gifted children as well as the handicapped, special services such as health, mental health, screening, guidance and counseling, speech therapy and similar services, programs for slow learners, compensatory education, ghetto programs, and of course the greatly increased interest in the varied forms of media, both print and nonprint. Many programs have been instituted for preschoolers as well as greatly increased post-secondary programs. Higher education has grown considerably, especially on the junior college level of grades 13 and 14. Quite obviously all these programs cost, particularly when it is considered how technology has expanded including not only books and the typical audio-visual devices but computer-assisted instruction, instructional television, dial access devices and other relatively exotic equipment at equally exotic prices (S58, 3-5; C60, 14).

Lists of needs, up till recently, included more personnel in the teaching ranks. Though most schools systems have finally been able to find ample personnel, yet certain areas are still weak and further need is apparent for dedicated and fully qualified educators. Mention is frequently made regarding quality in teaching as well as the academic outcomes of education. Much emphasis is being made in regard to educational assessment and various forms of performance objectives and rewards thereof. The current state of society has caused many to wonder as to what is being taught. Teacher education is undergoing changes and some educators feel these changes need to be more innovative and concerned with creativity. Leadership is being sought that will develop each of the aspects of education, as enumerated to a limited degree in this chapter (R14, 14-15; W26, 29, 34-35; W8, 26-27).

There is further need for professional personnel who are innovative, creative, open-minded and eclectic in educational thought. Of course teachers themselves find it difficult to keep abreast of new developments, thus the needs are present for in-service programs and continual professional development via various avenues. Additionally, the typical educator has difficulty in finding time to be truly professional inasmuch as he spends considerable time in clerical duties and other nonprofessional chores which point up the need for supportive measures. Typically this has taken the form of more para-professionals on the staff as well as labor saving devices as found in the new technology such as computers, test scoring devices and thermal copiers (K18, 1; R15; R14, 14-15; F17).

The curriculum itself is in need of continual study, especially as it is found wanting among various groups of pupils. All too many curricula are obsolete and inadequate. Minority groups feel the curriculum is not appropriate for their needs. Many young people have been subjected to a college preparatory program who really have little need for such, nevertheless, thousands are put through the programs to come out inadequately prepared for life and its duties.

As noted in the philosophical phase much attention is centering on the individual. The need is apparent, thus various individualized instruction programs, nongraded schools, multimedia self-instructional approaches as well as the concomitant stress upon behavioral objectives and adequate evaluation have been developing in response to this need (K18, 1; W26, 29-34; W8, 26-27).

A need has been noted by many for specialized facilities and accompanying materials, curricula and personnel as well as supportive services in varied areas, such as outdoor education, science instruction with emphasis upon discovery, vocational education and industrial arts, remedial reading and allied fields, foreign language instruction and the humanities. Many of these programs are rather expensive to maintain, thus smaller schools and those with low tax bases have difficulty offering the variety and richness of curricula and instruction (U10, 111-112; F17, 219-229).

Though many lists could be presented from many and varied organizations, the following one from the Project on Instruction of the National Education Association (N.E.A.) is noted as a rather comprehensive listing of areas of improvement potential. It is apparent that many facets of this report are already being implemented, however, it is evident that more emphasis must be placed on the elements noted.

1. Local school boards are the legal instruments for the state.
2. Federal assistance should be provided, directly and by the Office of Education.
3. Local school faculties should have freedom, within the law, to decide on what to teach and how.
4. The state should establish standards, give adequate resources, and give dynamic leadership to curriculum innovation.
5. State legislatures should provide general goals, not prescribe the curriculum.

6. At least one per cent of the school system budget should go to experimentation and innovation.
7. There should be adequately staffed and supported regional curriculum and instructional centers, mainly at universities.
8. We should encourage national, nongovernment groups to stimulate curriculum and instruction innovation. Academic scholars should work with professional education in this.
9. There must be the development of individual potential, plus a common fund of knowledge which allows for individual differences.
10. The priorities that exist within the teaching fields are the following:
    - teaching reading
    - listening
    - computation
    - creative and disciplined thinking
    - self-instruction
    - fundamentals of humanities
    - natural sciences
    - appreciate and discriminate in literature
    - physical education
    - composition
    - speaking of native and foreign tongue
    - methods of inquiry and application of knowledge
    - independent learning
    - social sciences
    - mathematics
    - music and visual arts
    - instruction in health education
11. We must combat youth unemployment and juvenile delinquency.

12. Rational discussion of controversial issues should be part of the curriculum.
13. Pupils should be taught to think critically about social forces and trends.
14. There should be a study of political and social idealogies that focus upon communism.
15. There should be a balanced curriculum wiht comprehensive studies as well as an individualized program for the child.
16. There must be priorities in curriculum planning with the objectives clearly in mind.
17. Continuous evaluation and study of the curriculum are needful.
18. The study of national curriculum study groups should be made with view of possible application.
19. Pupils should be able to progress towards increasingly mature utilization and organization of knowledge. The school should experiment with avenues of organizing this ideal.
20. Educational objectives are to serve as a guide to decision-making.
21. The curricular sequence in verticle organization should consider logical structure, difficulty and relationships to other fields.
22. Though young children can learn relatively difficult materials, study should be made of "should" they and

"when" to teach "what." The goals in this field are quite divergent.

23. We should provide for upward progression of pupils, considering nongrading, multigrading and flexible scheduling as alternatives to the traditional approach.

24. The assignment of pupils to class groups is to be based on knowledge of the pupils and teachers, as well as the goals to be achieved. No doubt all too many children do not have this concept involved in their placement.

25. Horizontal organization should permit flexibility in assigning pupils to varied sized groups. Cooperative and team teaching should be considered.

26. The pupil should be able to experience continuity and relatedness in his learning. He needs close counseling and specialized personnel to assist him in coordinating a total program.

27. There is need for small groups in self-contained classrooms.

28. Each school system needs to have instructional materials and resource centers with at least a library and audiovisual center. Each building needs to have an instructional resources facility staffed by personnel in curriculum and instruction as well as in the fields of library science and audiovisuals.

29. The use of educational television (ETV) as well as radio needs to be fostered along with evaluation of each.

30. Programmed instruction needs to be used with proper supervision and accompanying research.
31. There needs to be comprehensive study of printed materials and other instructional media.
32. Space utilization should encourage the following situations.
    a. varying sized groups from seminars to multi-classes
    b. independent study with visual and acoustic privacy
    c. access to varied instructional media
    d. multiple use of facilities (F17, 219-229).

The above listing covers the field as a whole. Not only does it present needs but gives indication of the trend of thinking in educational circles at this time. Various facets of this report will be expanded later in this paper.

D. Needs of isolated and smaller schools

In addition to the general eneds listed above, the smaller and rural schools as well as the isolated schools have some unique problems to face. Though all schools and districts have financial needs, the smaller and isolated schools, which generally are one and the same, have compounded problems in that they frequently are in poor areas with low tax support. Obviously when the funds are short, every phase of the program suffers to some degree. It is more difficult to attract top-notch faculty when salary scales are lower than in urban areas. Media collections are smaller, not only because of the actual dollar scarcity but because of the actual dollar per pupil total does not allow for such a variety as might be expected in larger enrollment areas. Special services suffer such as guidance, vocational education, special education, health services and speech therapy. Administrative services must be elemental or prohibitively high on a per capita basis if ample quality is present.

> Many counties in this nation do not take in enough fees to pay the salaries of public officials who operate the offices. To expect the school districts of these counties to operate quality educational programs is to demonstrate loss of contact with economic reality. Grassy Lick, Ky. never could muster the resources of Pasadena, Calif., even if they taxed themselves into bankruptcy. Big Wind, Mt. cannot compete educationally with the resources of Winnetka, Ill. regardless of its commitment to quality education (M58, 23).

These smaller schools have certain inherent problems that go with their size and isolation, such as greater bussing costs, shipping costs for supplies, higher costs per pupil because of class size, often higher administrative costs, higher audiovisual and equipment repair costs as well as higher materials cost because of the smaller quantities purchased (K18; R15).

Smaller schools generally have need for a broader instructional program than they are capable of providing. It is generally considered that a relationship exists between the size of the school or district and the comprehensiveness of the program (S13, 20). Quality often suffers as teachers must teach in fields outside of their specialties, spread their efforts too thin, teach without adequate facilities and materials to reinforce the instruction, and sad to say quality teachers all too often move along to better positions. Many have suggested that the smaller schools tend to be less innovative and more tradition-bound in curricula and instructional practices. Where innovative practices are in existence there usually is not the research background to validate the practice. Time, personnel and equipment are lacking. The diffusion of what is learned tends to be haphazard and relatively ineffective. Where innovations are introduced, the teachers frequently tend to be apathetic in that they are not prepared through adequate in-service programs (R15; S58, 3-5; K18).

The smaller schools frequently are within inadequate sized districts. Some say that a district should have a minimum of 10 000 pupils, yet in the Midwest, the Appalachians and much of the West, such district sizes do not commonly exist. A similar recitation could be repeated--less services such as special education, media backup service, sparcity of curricular and administrative assistance etc. Evidence will be presented later that indicates that these small districts cannot offer that which is required in this era (S58, 3).

The following survey of a study reported in 1960 by the Research Division of the National Education Association may further reinforce the problems of the small school. This study was of one-room schools which have been decreasing at the rate of 4000 per year since 1950. Eighty-three per cent of the teachers had less than four years of college. Only 1.4 per cent held a master's degree. They averaged eleven years in the teaching profession and three years at the current school. They spent an average of

43 hours weekly on school duties. The average salary was running a little less than $3000 annually, which was 60.9 per cent of the national average at that time.

The average school building was 43 years old, with 84 per cent being of frame construction. They averaged 696 square feet for the average 16 pupils. One-third of the schools had indoor toilet facilities. Ninety-seven per cent had electricity and about a third had inside running water.

The typical school had six grades, though 23 per cent had seven grades and 21.2 per cent had eight grades. Five point eight per cent had fewer than four grades. Twenty-one per cent of the teachers had fewer than 10 pupils in the class and 9.2 per cent had 30 or more pupils per class.

Of 18 common instructional aides, only nine were considered by 50 per cent or more of the teachers as being up to date or good. These items were:

chalkboard
encyclopedias
large wall maps
textbooks for pupils
world globe
work table
library books
bulletin board
record table

Only three services were reported as being available to 50 per cent or more of the schools:

a. special education teacher for physically handicapped
b. regular health examinations for pupils
c. access to audiovisual and other instructional aids (N8).

It appears quite evident that the various needs innumerated have even more relevance to the very small school. As brought out elsewhere in this paper, some small schools will always "be with us" in that they are isolated in such a way that consolidation is not feasible. The section on small schools also brings out that schools can be small and still be quality in their offerings, though few would argue the one-room school as being the "small school," typically and ideally. Optimum sizes are discussed elsewhere.

E. Needs of church-operated schools

Virtually every problem mentioned previously would apply to the church-operated school. In addition these schools must face an even more precarious position in financing inasmuch as they are strictly voluntary in their operations. They must depend upon tuition, grants from sponsoring church groups and a limited amount of external support. Generally the faculty are paid lower than surrounding public schools and in addition are closer to the parents and patrons, thus more possible friction. Higher demands are made upon faculty, both in work time and expectancy of high moral character. Patrons require that the outcome of their expenditures be notable, both scholastically and morally.

One can hardly pick up a general paper or journal without being reminded of the plight of the private schools. The needs within these schools frequently are such that they must find financing and moral support or they will cease to exist.

F. The need for cooperative and/or regional solutions to schooling

To a great extent the need for cooperative effort in education evolved out of many of the needs just noted. Within the last decade much has occurred in various parts of the country in this field. The majority of the states either currently have programs of cooperative and/or regional action or are in various stages of study and implementation. Evidently they have seen the need for such programs. Evidence will be presented later in this paper for this line of action (F12, 219ff; W26, 35; W8, 26-27).

Briefly it might be stated that where a problem occurs and the future seems fraught with complications, people tend to find mutual solutions. Many have gone so far as to suggest that we either work together or succumb. For whatever the degree of ominous destiny for our educational system, one thing seems quite sure: Many are concerned about the needs. Many feel that a need definitely exists for cooperative action which typically takes the form of some sort of regional organization. Though few will suggest that this is a panacea, many will strongly suggest that it is a positive step in the right direction.

2. Need of this study

If all the institutions of higher learning operated by the Seventh-day Adventist denomination within North America were combined, the total enrollment would approximate that of an average state university. If all the Adventist elementary and secondary schools in this same area were combined into one district, they would be equal to that of a moderate sized city school district.

It has been noted that a majority of the states have noted the value of cooperating in their educational efforts, usually by the establishing of some sort of regional program, or are currently in the process of study and possible implementation. There are over 1000 collegiate consortia giving further evidence of the values to be derived from cooperative action. The pupil and student populations involved in these programs are usually much larger than those involved within the Seventh-day Adventist school system. The financial base is generally much larger than the Adventist school system. Yet with these larger and wealthier systems that are generally adjacent to each other, the value or even necessity of cooperative and/or regional programs has been observed.

The Seventh-day Adventist school system is scattered over North America with limited enrollments. Most schools are marginal or submarginal in size. The financial base is usually very limited. For all practical purposes the cooperative and/or regional concept has not been discovered as a possible solution to many of the problems that face the schools. It has been only while this paper has been in progress that three major movements, as will be described later, have evolved that are doubtless momentous: the Board of Higher Education, a plan to consolidate objectives and action in the North American Division collegiate institutions, The Pacific Union Conference Department of Institutional Services, a pool purchasing program being officially started in the West and now going nationwide and the new T.V. and film facility in southern California which is to serve the denomination's major television and radio programs.

The secular schools have seen an avenue for improving education. The denomination is beginning to move in this direction. It is the hope of this writer that this paper will act as a catalyst to innovative thinking; that it will stimulate cooperative action among the schools. There appears to be a need for regional thinking, even though many modifications will need to be made in the concept as applied to the Adventist school system.

3. Statement of purpose

The basic purpose of this study has been to find ways and means to improve the educational system of the Seventh-day Adventist church. A concomitant purpose is to render practical and sound information to other church groups and where applicable to public institutions.

The cooperative and/or regional educational service center concept is the avenue for improvement that is being primarily studied in this paper. Broad educational movements are noted in order to give foundation for the need of the regional concept in many of the areas. Representative programs, either as separate units or as a total program, are presented to give evidence of what has been done. Denominational programs are also noted.

Recommendations are given at the culmination of the study. These recommendations are based on the overall evidence of the study in light of the unique needs, milieu, philosophy, resources, and organization of the Adventist school system.

4. Delimitations

A. Inclusions

This paper is a descriptive study of the cooperative and/or regional concept in education. Background material is briefly given in introduction to the movement under study. Various forms of the concept are introduced to give credence to the idea and a basis for the recommendations.

The study is confined primarily to the United States inasmuch as that is the primary portion membership-wise of the North American Division of Seventh-day Adventists. Emphasis throughout the study has been on the media phases of education inasmuch as they are generally at the center of most regional cooperative programs.

Materials on the organization, philosophy and resources of the Seventh-day Adventist church in North America are given as a basis for understanding the problem as a whole inasmuch as many are not aware of the church school system. Specific recommendations are given for Michigan, inasmuch as it is here that the author is currently working. Similar but less detailed recommendations are given for the Central Union in that it has certain unique problems that must be faced. The northern portion of California is also listed in that certain problems exist that are different from the other areas mentioned. Additionally the author has spent most of his professional career, to date, in this area and thus has a definite interest in improving the program.

B. Exclusions

Because of the vast field of cooperative and regional educational programs within the United States it has not been feasible to be encyclopedic in scope. A sampling of various programs in the United States has been presented in order to develop the concept. It is recognized that much could be learned from other areas also and it is also noted that these recommendations very likely would have overseas applications also. Time and physical limitations dictate this restriction.

This study must exclude details on regional educational service centers (R.E.S.C.), their organization, financing, educational specifications, job descriptions for personnel and similar facets of much importance in the implementation of such a program. Even though most of these areas are discussed to some degree, they are presented as steps in the development of the concept and general feasibility of the application to the Adventist educational system.

The two major and one minor areas receiving attention in the recommendations are for the purpose of demonstration of two approaches to the problem and a sub-application to a low population area. Though other areas are excluded specifically, it is the intention that the areas presented will be broadly typical and not exclusive.

C. Assumptions

It has been assumed that the reader is an educator or one generally conversant in the field, otherwise explanations might proceed to the boredom of the serious student. Where there might be a misunderstanding, clarification is added. Some acronymns and abbreviations are followed by the term for the convenience of the reader.

It has also been assumed that the Seventh-day Adventist schools need the same general services as the public schools, utilize the same media and generally adhere to common curricular and administrative procedures found in this country. Variations within these are noted.

Funding by the church through subsidies and tuitions as well as gifts by private donors and corporations is assumed, rather than support by the various levels of government. Inasmuch as the church-state issue is a major problem in its own right, it has not been discussed here, other than to categorize it as an alternate route of finance.

Spelling and language are basically American English, though compromises have been made for the benefit of the South African reader in numerical notation and in some language usage.

Though the reader be a professional it has been noted that many are not aware that the R.E.S.C. takes many forms and though the full-service center is frequently found, many specialized units exist in addition. Even the so-called full service R.E.S.C. are supplemented by specialized centers, such as computer centers, I.T.V. networks etc. This concept must be clear or the reader will draw incorrect conclusions, especially as they pertain to the Adventist system, which of needs will make adaptations of the overall concept because of its unique situation.

5. Procedures in collecting data and processing that data

This study is a descriptive research type paper with the procedures following several major phases which will be listed separately.

A. Phase one: collecting the data

Most of the material collected is primary in character for the simple reason that little was found of a secondary nature, other than examples of services and opinions by various authors. Though bound books were found to give supportive evidence, no texts or reference books as such were found in the field of regional educational service centers. Direct contacts with the centers, either in person or via mail was found to be the most rewarding. The appendix gives a listing of the various sources of materials. The footnote bibliography will indicate the specific publications and contacts.

B. Phase two: treatment of the data

The criteria for the selection of materials, aside from the generally accepted elements of authority, accuracy, appropriateness etc., has been to obtain a diversity of viewpoints, a variety of programs and a fair sampling of geographical locations and sociological units.

Selection has emphasized the media phases of cooperative and/or regional programs. This has been relatively easy inasmuch as media services are very commonly at the center of regional educational service centers. However, other types of services have been included but with lesser treatment in that they are part of the whole.

Many programs have been presented that are representative of specialized service units in that applications to Adventist schools might utilize such. In some situations a program has been noted because of its possible application to the cooperative concept.

The background material presented is typical of the most common educational movements and not to be construed as anywhere near exhaustive. This material has been presented in three major areas: curricular, administrative and in media. Each of these areas must be considered in order to bring meaning to the cooperative-regional concept and the need therein.

C. Denominational programs

The materials presented in the denominational programs section is not encyclopedia though that presented regarding the Seventh-day Adventist programs in existence covers virtually everything of significance. It will be noted that not as much material has been presented within this area as in the secular, public programs. The reason is rather simple--not much has been done. Every denomination of any size was contacted regarding cooperative and regional programs in education or related fields but the responses were disappointing. One of the major denominations was interested in the study for they were undergoing study in this field and felt the need, thus there was an interest here, as well as from others, though that which has been actually accomplished is meager.

D. Conclusions, summary and recommendations

At the end of each chapter there follows a summary and general comments on that chapter. The conclusions which follow the basic text will give basis for the recommendations. The recommendations are representative and cover but the concept and general considerations and are not intended as complete guides for implementation. The appendix includes items that are of general interest to the total paper.

The footnotes are at the end of the study and are referred to by letters and numbers after the reference within the paper itself. In the following example: (C17, 14-16), C17 refers to the 17th entry under the "C's" whereas "14-16" refers to pages 14 through 16.

6. Program of study

The basic portion of this study may be placed in four steps or areas. The first portion delves into background material and understandings. In order to properly understand the increased interest in cooperative and regional educational programs and more specifically the regional educational service center concept, it has been felt necessary to briefly study the sociological, philosophical and demographic features of American life in the context of history and political science. Without dwelling too extensively on generalities, the study has moved into general educational trends, many of which have direct connections with the cooperative-regional movement. In summary form current trends in school organization, administration, curriculum and instruction as well as in the field of media are presented. Throughout the professional literature, comment is found regarding the cooperative-regional approach to the solution of many of educations' problems.

Next there is examination of various facets of the regional approach to education, such as the rationale and purposes of the regional educational service center, the organization of these centers, the financing and the physical aspects of the regional service center. The application of the cooperative concept to higher education is explored briefly inasmuch as much can be learned from their programs and also since some regional educational service centers are at universities or definitely include them as part of the total resource program of education.

Specific services that are offered by various types of regional programs are then studied. It soon becomes obvious that various forms of media services are at the heart of a majority of the cooperative and regional programs, though usually not at the exclusion of other services.

Inasmuch as a primary aim of this study is to find means of bettering the educational program of the Seventh-day Adventist school system, the last portion enters the field of religious education and studies various denominational needs and solutions via cooperative action. Unique needs and problems of the Adventist school are presented. In order to properly understand these needs and problems and the place cooperative and regional programs might place in this type of a system, it has been found necessary to briefly outline the philosophy and organization of the Seventh-day Adventist schools. Quite obviously the idea of working together is not entirely new, thus the basic actions now in progress within the system are outlined as well as a presentation of the potential within the church for further cooperative action.

7. Acknowledgements

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CHAPTER 2

BACKGROUND UNDERSTANDINGS TO THE REGIONAL/COOPERATIVE CONCEPT

1. Introduction

The regional educational service center concept is based on cooperation from beginning to end. It has evolved because of felt needs. The background to this process of cooperative action within education involves society as a whole as well as virtually all facets of education.

It is the purpose of this chapter to very briefly touch upon some of the factors needed to understand the phenomenal rise of the cooperative approach to the solution of many problems within the educational circle.

2. Demographic and related factors to be considered

It should be noted that in the two hundred years of this nation's history the economy has moved from agrarian to industrial. The population has moved from the rural areas to the urban centers. The social changes have been immense and far reaching. It is quite apparent that the schools have reflected this change in all areas of society.

Inasmuch as the recommendations of this paper will emphasize three areas of the country it might be of value to give a few facts on these areas. Michigan has an economy that is quite diversified though the industry is centered in the automotive sector. Agriculture includes field crops, truck crops and fruit. It is a progressive state with a high per capita income.

Michigan is 12th in density of population (W39). The population is growing at better than 20 per cent per decade with most of the people residing along the southern 150 mile portion of the state (B53; S65).

Though the state has decided seasons, access is usually readily available along the fine freeway system in all but the worst winter snow storms. Virtually all the large cities are located within a three hour drive of each other (L19; W39). It should be kept in mind, however, that there are counties in the northern portion of the state that have less than 3 000 inhabitants.

Nebraska is 39th in density of population and is primarily an agricultural state. Omaha and Lincoln are the only major cities. Most important towns and small cities are located on the east-west Interstate 80 freeway, which takes about a day to transverse. The great plains area has hot summers and cold winters. All-in-all the state has had many features which have necessitated new approaches to the education of the young. Population growth has been very slow in most areas other than in the large urban centers. The economy is not as strong as most states, thus problems are compounded (W39; S12; H8).

The State of California is generally considered one of the most progressive among the 50 states. The economy is very diversified and strong. It is the most populous state with a vast proportion living in but a handful of urban centers. The highway system is one of the best in the nation though natural features such as mountain chains complicate transportation (S4, 130; B8; W39; S22, 130). The state is in the forefront of many movements, including education, thus giving fertile ground for innovation.

3. Higher organizational practices and trends in American education

In the United States there are three general types of educational systems. The one-echelon or single level system is one in which one office controls all educational programs. Hawaii is of this sort (W39, 56, 212). With the two-echelon system there is no intermediate district, such as the county office. The most common system is the three-echelon system where there is a state office, intermediate district and the local district (S47, 1; F7, 6).

In recent years there has been a trend in which the intermediate district is enlarging, frequently becoming multi-county in extent. The growth of the regional educational service center is directly tied to this movement for the intermediate district is becoming more service oriented (A39; S13; W35; S37, 125; F7, 6; S47, 11; E26, 41).

Intermediate districts are frequently organized along the lines of the state office. Additionally, in some states such as Nebraska, the state office carries some of the functions of the intermediate office in the provision of subject consultants etc. In some states there is a coordinator of regional districts as well as audiovisual services and other special service areas (S17, 17).

District reorganization and consolidation again parallels the rise of the regional educational service center. The number of districts has been rapidly dropping (B9, 2; T13, 2). Criteria has been assembled in the evaluation of proper district size, which has a direct relationship to the intermediate programs (M49, 62). It has become apparent to many researchers and observers that small districts and schools cannot adequately serve the educational needs of the pupils.

It should be noted that the regional concept has had its greatest impetus among the rural school areas. It has been acknowledged that a better method must be found to educate and serve the youth of the less populated areas (F11, 30; H33; W13, 4; G43; S13, 98, 99; K1, 92; F7, 17; M40, 191).

Many concede that largeness has its own problems and thus consolidation has solved some problems and instigated others. In some parts of the country schools and districts cannot be consolidated and other means must be utilized to gain strength (S3; A5, 6).

The truism of the above statement is seen in the desire of many large city school districts to decentralize in order to gain the values of community awareness and participation, flexibility, gain of individual concept etc. It is interesting to note that the suggested size for these new districts is similar to the figures cited for regional districts--10 000 to 50 000 pupils. It appears there is a common meeting ground in some of these elements of efficiency versus the individual (F7, 17; N25, xiii; A37, 1).

Though it is generally thought that the educational park idea has many social reasons for its implementation, the concept has many facets that are directly related to the regional programs. The park is a cooperative venture in its pure sense in that many facilities and resources are mutually used, which is an objective of the regional program. The idea bears much study by the student of the regional educational service center (E6, 13; C38; K10; L14, 44-46; J4, 44; W7; U8).

Again the comprehensive high school and consolidated elementary school have similar objectives to those of the regional concept, though obviously on a lower organizational level. Many of the approaches utilized in instruction and administration have a bearing on the items discussed in this paper (C65, 37; L12, 52; R12; K17; B23; R13; F9; C6; C11; G54). It has also been observed that certain sizes of schools and districts are required for efficient operation, which in turn would affect the organization of an intermediate district and the frequently involved regional educational service center (S13, 45-48).

4. School administrative practices and trends in American education

Administrative practices and trends will dictate to a large degree the types of services to be offered by a regional educational service center. It is thus part of the continuum that is required for a fuller understanding of this topic.

In the personnel field the emergence of the paraprofessional is significant. Generally speaking their utilization is on the local level though the regional center may act as an implementation agency or clearinghouse as well as a user of such persons themselves. In some cases the paraprofessional is a volunteer and in others a paid employee (T28, 39, 40; J3; T27, 139; N35, 42-47; P57; A38; D8; L13, 196).

Various new types of schools have come onto the scene. The regional center, which frequently is the intermediate school district, will be involved in organization and in service to these schools. The middle school for the upper elementary years is one of the new types of schools (C72, 82-86; M60, 18-23; M4, 86-92; P8; C51). The non-graded school and open school are also newer in their concept, with special implications to the Seventh-day Adventist school program (B46; S24, 41-44; J6, 75-77; S32, 11-12, 23-24). With this ideology evaluation is paramount, though not in the traditional mode but rather as a continuous process (C31; F8; M11; S32, 290-306). Again, especially the latter type of school, additional services might be required where cooperative action would be of basic benefit.

The increased emphasis upon planned schools on appropriate sites has taken on new meaning, yet most smaller school districts do not have the personnel to carry on the task. Educational specifications should be written by experts in the field. Professional architectural design might be difficult to obtain. Additionally the one-shot school construction procedure can be costly, from design through material purchasing and construction. The place in the regional concept is crucial with facility planning (S25, 6; C10; A7; G45; E7, 1; P8; S51; B51).

As to whether ideal or not is not the question in regards to the small school. The fact is that they exist and will continue to exist for the foreseeable future. The understanding of the small school, its problems and possibilities is critical to the formation of regional educational service centers. The Committee on Small Schools of the North Central Association of Colleges and Secondary Schools has done some excellent study in this line (N37; N36).

Not only has the small school been accepted as a reality but some have purposely planned schools that are small (L12). Though it is not the purpose of this paper to defend or propound, it should be stated that the small schools which do exist, wish it or not, within the Seventh-day Adventist system, should be studied carefully as to their strengths and weaknesses in light of the references listed and then in light of the material in this paper. It is felt that the regional concept has much to offer as a supplement to the small school (B9, 2; L12, 52; F11, 35; N36; N37; N23, 7; R22; N44; N48).

Many other innovative programs as well as "situations" could be cataloged, but this should suffice at this juncture, to illustrate conditions that have brought about the need for regional/cooperative programs.

5. Curricular and instructional trends in American education

The trends in teaching are definitely related to what services the regional center will provide. Such a center could not intelligently exist without a thorough knowledge of the field of instruction and curriculum.

Inquiry and discovery lie at the heart of much that is new. It is self-evident that this approach would necessitate a broad spectrum of materials and equipment for its fulfillment, thus a partial reason for the development of the media component of the regional educational service center (F16, 31-35).

The social sciences have taken on new meaning with emphasis being on ethnic modification, economics, anthropology and international understanding (D23, 43-46; J9, 350-354). The education of the minority and ghetto youth has taken on importance (D22; A45, 16-51; Q1, 52-90).

The language arts have emphasized creativity, current literature, communication, film as well as innovative approaches to reading instruction (F17, 36-42; S66, part II; B4, 32-34; H22, 37, 38; S56, vi; S34, 468; S34, 6, 7; K3, 35, 36). It goes without saying that the regular subject fields have continued but with the use of newer media and fresh ideas.

Science and mathematics have utilized the discovery concept also. Many curriculum studies such as the CBA, BSCS, PSSC etc. have taken different tacks (H4). The curriculum has become more sopisticated, to say the least. Mathematics has pushed for understanding of reasons and theory (C41, 29; P42; R1, 57-59).

Undoubtedly it would be safe to conclude that overall there is need for increased variety in media, facilities, equipment and trained personnel. It is here that regional and cooperative action may help to render a partial solution.

Preschool and kindergarten education has had much growth in recent years. In urban centers and many rural areas such education can be easily rendered, though isolated sectors have had difficulty offering ample programs.

The programs offered include innovative approaches such as in Project Headstart (05, 14, 22-29; C48, 401-405; W32, 406-410), DARCEE (D8, 1, 2), Junior Five Project (F12, 12, 23, 24), Early Childhood Project (A17), Follow Through Program (H34, 15, 16) as well as many others.

There are possibilities for cooperative action in in-service programs, coordination of action, supplementary services etc. As will be noted later telecommunications, paraprofessionals and mobile units are often involved in a cooperative professional program.

Individualized instruction is very much in practice and thought as of this writing. Many of the educational innovations incorporate this concept such as flexible scheduling, team teaching, open-space education, various forms of study carrels etc. Regional centers offer supportive services to each of these aspects in the various areas where it is in effect (T14, 19; M17, 11; H31, 33; R92; B41; S52).

Flexible scheduling has been noted as one of the newer practices. Most smaller schools find it difficult to implement this type of program on their own, thus cooperative action is of value (T27; T28; F6, 63; K16; M61, 44; W29; M17, 26; S53; S69, 63).

Team teaching programs are done on a local level, though cooperative action makes available consultants, computer services and other services to aid in implementation. The concept utilizes teaching aids, interns and various specialists and thus can be aided indirectly by a regional service center (P57, 31; C50; F15; J8; T28; M21, 79-90; S32, 59-75).

Another local program is that of advanced placement which does in fact require cooperative action among various schools on secondary and collegiate levels (C56; P56, 6, 7, 51).

Simulation and simulation games involve a variation of role playing. Many of the commercial products require considerable outlay of funds though the concept can be applied in teacher-made simulations. There are good possibilities in the utilization of this media of teaching via inter-school games as well as in a regional educational service center stocking a variety of games for circulation to various schools (G34; F12; G55, 35-37; K22, 1, 2; C54; F21, 7; S21; Ew, 94195; M26).

The year-round school concept is usually implemented on a local district level, though an intermediate district might be involved as a consultant, evaluator and coordinator. The concept is one that attempts to better utilize personnel, facilities and media (N42; T27, 140; W5; E34; U14).

Educational assessment is a cooperative program on a grand scale, though it has implications in the regional concept (W37, 1; M32, 1; W37, 21, 12-18; S10; A12; M36; M30).

In each of these innovative programs the regional educational service center no doubt will play either a direct or indirect role as catalyst, administrator, coordinator, supplier of supplementary services, provider of in-service education or a host of other elements.

6. Media trends in American education

During the last few decades the audiovisual field has made giant strides. Telecommunications, which is an audiovisual field in essence, has done likewise. Print materials have taken on new life with improved color presses and the interest in more visuals within the pages of the books and other print media. It appears that progressive libraries are now multi-media in their collections and services. Increasingly the media center is becoming the hub of the school instructionally and even physically (P55; T5; M46, 6-8; G40, 8-12; L8, 23, 24; A57, 92; C60, 65-78; A14; A49; D9; W14; E17; N11; E11).

Audio cassettes, as of this date, are the major new type of audio media with disc recordings being used to a large degree as they have been over some decades (C24).

Educational and instructional television are well established media for teaching with some states being completely covered with television networks (N15; B15, 17, 18). Cable television is coming of age with many possibilities for cooperative usage of this media. Cassette videoplayers have great possibilities for schools and media centers (P7, 43; W28, 6).

Programmed instruction is still important though the teaching machine as such has lost some of its influence. Those units that have become most popular have been those with standard formats. It is an expensive medium, thus many possibilities exist for cooperative action (U6, 1-8; S59, 168; B47; G36).

Computer-assisted instruction is very innovative but not as common as some might wish because of the costs. Cooperative/regional action is about the only way this method can be utilized for no ordinary school or district could afford such a unit, unless it be a relatively simple unit (A54, 1; K13, 143, 144; H16, 1-6).

Audio-tutorial systems are steeped in audiovisual principles. Though it is utilized in local schools, regional programs are able to assist in many avenues such as in development, pool purchasing of equipment and software etc. In essence the system is self-instructional utilizing various types of audiovisual equipment and media (P21; M44; S64, 414-418; M22, 31).

Remote access retrieval (RAILS) is a system that must be regional and cooperative, for all practical purposes, in order for it to properly function. DAIRS is a similar system that is information oriented while RAILS is educationally oriented (N33, 42-45; E28). The ERIC (Educational Research Information Center) is an information system utilizing microfiche and print indexes in professional education. It may utilize computer tapes also and thus can become part of an information system (E13; B42; B7; M39).

The field of microforms is becoming more common with some of the information systems incorporating microforms. Telecommunications also becomes involved in long distance print service. All-in-all this entire area must generally speaking be part of a regional program or various facets of it be part of a cooperative effort (T11, 41, 42; 09; A1, 44, 45; E13).

The standards for school libraries have been increasing in quantity and quality, including both print and nonprint forms. Though the library be local, its operation is generally far more involved and thus regional programs have a direct impact in many cases (A15; A16; E24, 35-39; C3).

New school libraries are multi-media in extent and are a core of the school in many ways (A14; C69; E23; T3; C35; B59; P24). The study carrel has become a basic element in library design, both wet and dry formats being noted (C35; E9; E23, B46, 115). Here again the regional educational service center acts as a supplementary materials center in many cases.

The importance of the media component in the school is underscored somewhat by the suggestion by one authority that 20 per cent of the building budget should go to the library facilities (B46, 124, 125). This strong importance is also noted in the regional educational service center where the media component is frequently the major rationale for the existence of the R.E.S.C. (regional educational service center), though often other services are offered also. This will be expanded later in this paper.

7. The relationship of the regional educational service center and administrative, curricular and media trends

This chapter has given but brief discussion to some of the more innovative and important new developments. This paper is not attempting to give an overview of American education in toto, but rather to give ample background to tie the concepts together. The regional educational service center is basically a cooperative venture, either voluntary in nature or mandated, by which various services are rendered to member schools and districts. These services are determined by what is needed and thus most R.E.S.C. are varied in their offerings, though there are common elements in most full-service centers. It has been found that certain services can be best offered in a cooperative fashion on a regional level. At this juncture it should be noted these regional centers have evolved from a felt need. Educational costs have risen. The curriculum has expanded. More is expected from the schools. The media explosion has been diverse and expansive--and costly. Many have felt there must be a way to better utilize the educational resources and thus the regional educational service center (R.E.S.C.) came into being.

9. Summary and comment

The regional educational service center concept was born because of a need. America has grown from an agrarian economy where each man was relatively independent to an economy of technology in which every man is inter-dependent upon the other. In one way or another cooperation has become a necessity.

A basis for the understanding of the recommendations of this paper are given in this chapter. There are three states that are emphasized in the recommendations. Michigan is a progressive, growing state with a balanced economy. Nebraska is an agricultural state with a generally stable economy but very slow growing. California is growing rapidly and is the most populous of the states. The economy is broad and progressive.

Of the three types of state organization, the three eschelon system is most common. This paper is primarily interested in the intermediate level, which during the seventies is frequently multi-county in extent. Consolidations and redistricting have come about on a grand scale. The R.E.S.C. and its growth parallels these movements and frequently is part of the overall state planning along these lines.

There seems to be appearing an efficient size for general school administration for both the consolidation forces and those in decentralization are giving a pupil population of from 10 000 to 50 000 as having the largest degree of efficiency.

Administration has taken on new movements such as the evolution of the comprehensive high school, the middle school, open schools, flexible scheduling, school planning on a professional plane, a renewed interest in the problems of the small school and many other programs. All of these affect the services and overall organization of the regional educational service center.

In a similar vein curricular and instructional trends have a direct relationship to the R.E.S.C. Inquiry and discovery are at the heart of many programs. Mathematics is attempting to bring algebraic concepts to children. Language arts is linguistically centered. Science has become more sophisticated with more investigation and less rote. Minority groups and the disadvantaged have not been forgotten. Preschool education is being emphasized more. Individualized instruction is being used along with modular scheduling programs, open classrooms, advanced placement and similar inter-connected movements.

The media field has made giant strides recently and thus it figures centrally in regional programs. The standards have risen greatly and schools have realized the values in cooperating in the purchase and circulation of multi-media materials, and in so doing have a more extensive collection and save money in pool purchasing.

It should be made clear that the regional educational service center concept necessitates the consideration of virtually all phases of education on all levels. Though the media component is most commonly found to be the central service area, very often the R.E.S.C. is a full service facility. This does not rule out the pure media-oriented service unit. In other places the regional center is research centered, audiovisual or print oriented as well as provider of any one of scores of other administrative or curricular services.

CHAPTER 3

THE ROLE OF VARIOUS AGENCIES IN THE COOPERATIVE/REGIONAL PROGRAMS

1. Cooperation, a universal concept

The idea of cooperation is about as old as man himself. Historically the concept is found hundreds of times over in all phases of life. Within the United States there are over 77 000 formal cooperative programs. Over a thousand collegiate cooperative programs exist. Regional planning programs, smog control and conservation districts are found all over. Virtually every phase of human life is covered by some cooperative endeavor in some place (R20; G1; D20; F2; P32; H18; P9; Z2).

The idea, in essence is the

> . . . voluntary relinquishing of certain perogatives in exchange for assistance to insure or to enhance the possibilities of attainment of one's goals; the sharing of policy making, management, and labor as the means of securing greater or more satisfying rewards (A40, 1).

In the fullest and most current sense of educational thought, the school is part of the community in theory and in practice. In this sense what affects the one will sooner or later affect the other. Similarly what will help the one will in essence generally help the other. Ideas and concepts in one field tend to have much that will assist in another discipline. Cooperation is not only a matter of internal coordination, but cooperation on various levels between equals outside of the education field. Education has much to offer society and contrariwise various facets of society have much to offer education. It is a two-way street. Educators do not have a corner on knowledge, including those elements primarily in the field of professional education. In light of the above, it is suggested that one study further into how other cooperative and regional programs operate so concepts can be utilized as well as to find ways to implement cross-cooperative programs. (R20; G1; D20; F2; P32; H18; P9; Z2).

2. The community campus

In many localities the school is the center of activity. It serves many functions aside from being an institution of learning for children and youth. The following listing of dual usage is so common in hundreds of communities across the land that documentation is superfluous. However, even though the illustrations are common knowledge to any alert observer, they are given here in order to put across the point, namely that the school can and frequently does serve many publics through multi-usage of facilities and personnel.

1. The school playground and the public playground are one.
2. The school auditorium is used by many groups for programs.
3. The school pool is utilized by the Red Cross, Park Department and other schools.

4. The day school facilities and equipment are used for evening school, adult continuation school, summer school etc.
5. The school and the community library are one.
6. The school stadium is used by various groups throughout the year.
7. Outdoor education facilities are utilized by community service groups.
8. Recreational facilities are rented to church and lodge groups, or possibly offered rent-free.
9. Parking areas of churches are used by schools for parking and/or extra play area.
10. Nature preserves are used by local schools as well as colleges and other groups.
11. The Public Health Department and the schools work together in facility use and personnel in the operation of school health programs.
12. Educators serve the community as nature consultants on weekends and summers, act as volunteer firemen, special teachers for scouts etc.
13. Television and FM facilities are shared with the community. Cable television cooperates in providing several channels for community and school usage.

The list could go on. However, it is enough to show that the school can be of benefit to the entire community and that various community groups can benefit the school.

In the light of this paper, it is significant that many school facilities are not utilized to their fullest. Many facilities are rather expensive, such as swimming pools, stadiums, auditoriums, nature preserves and outdoor educational facilities. In many cases the items are not being used to full capacity, such as a football stadium that is used by hours out of each month. Multi-usage is a must if the full dollar value is to be seen. Good stewardship requires that every facet be explored and, where feasible, action be taken to put the facility or other resource to full use.

Other agencies are contacted for possible inter-agency use. All about the country one sees inter-agency automobiles from U.S. government offices. The Public Health Department, Park Department, and Police Department are typical of cooperative agencies, as well as other school districts or even other eschelons of various agencies. In essence many schools are realizing the values in full utilization of resources, therefore they share expenses and share the increments.

Julian Smith, a proponent of outdoor education, suggests some elements in the development of the community campus which probably has implications in the regional center program.

> One of the most important steps in the development of a community campus is to plan facilities in such a way as to avoid duplication and waste and provide for maximum use by many agencies. For example, there should be clusters of public buildings on adequate sites which would serve the program needs of schools, recreation and park departments, and voluntary agencies. This would make it possible for each to have its own identity in programming, but share many facilities such as gymnasiums, swimming pools, recreation rooms, auditoriums, play areas, arts and crafts studios, outdoor laboratories, camps, farms and forests (S35, 292).

This concept is further expanded by another author in mentioning the need for "interdependent planning with the total community and with agencies far beyond the campus edges." This would include regional and national library facilities, television networks, computers, scholars and producers of media (B50, 15).

The community, per se, may be of varying sizes, however, the concept of full utilization of facilities and equipment, materials and personnel is applicable to all types of communities, whether it be a small town or a region. A community is an area made up of those with common interests. It is a society. It is a body politic (F22, 275). As those within this community realize common interests and common goals, they frequently see the value of cooperating in achieving these goals.

A noteworthy example of a regional service center and its community involvement is that of the Portland Regional Instructional Media Experiment (Maine). This center has opened its doors to many agencies, in addition to schools within the membership of the region. In the following list note the great variety of agencies who have benefited from the service center. Among the major users, other than the schools of the region themselves, have been those shown in Table I.

As can be readily seen, the influence and use of the facilities and materials can be wide-spread. The term "community" has taken on an extended definition and no doubt many organizations and people within these groups will support the center in more ways than one.

TABLE I. MAJOR USERS OF THE PORTLAND, MAINE
REGIONAL INSTRUCTIONAL MEDIA EXPERIMENT

- Y.M.C.A.
- Cerebral Palsy Center
- Girl Scouts of America
- University of Maine at Portland
- Portland Public Library
- Baxter State School for the Deaf
- Gorham State College
- Waynflete School
- Children's Theatre
- Various church organizations
- Headstart
- St. Joseph's College
- Southern Maine Vocational Technical Institute
- Portland Boys' Club
- Boys' Training Center
- Pineland State Hospital for the Mentally Retarded
- People's Regional Opportunity Program
- Boy Scouts of America
- Westbrook Junior College
- Neighborhood Centers
- Museum of Natural History
- Neighborhood Youth Corps
- Northeast Hearing and Speech Center
- Cheverus High School
- South Portland Public Libraries
- . . . and others (G41, 24)

3. Inter-state cooperation in education

On the formal level of educational cooperation, the range of programs is great. In this section some exhibits will be presented on inter-state cooperative programs in education.

The Great Plains School District Organization Project, which encompasses Nebraska, Iowa, Missouri and South Dakota, has been quoted scores of times in this paper. This project has been aimed at the reorganization of school districts which is frequently tied in with the regional program. These Great Plains states have been famous for their multitude of school districts. Some of these districts are so small that there are more school board members than pupils within the district (H33). Without doubt the work of this group has fostered a reduction in the number of school districts. In 1958 Kansas had 2794 districts and by 1963 it had been reduced to 1840. By 1967 this was further reduced to 343 (K1, 94, 102). This would give evidence of success in the reduction of administrative units. Nebraska has had as high as 7 264 school districts. By 1967 it had dropped to 2 172, which even then was the highest in the Union. That was 10 per cent of the national total though the population is not much over one per cent (S13, 5, 13).

Another cooperative venture is the Development of State Leadership for Improving Educational Opportunities of Farm Migrant Children. This program was sponsored by California, Arizona, Oregon and Washington on the West Coast and Delaware and Florida in the east. Because of the mobility of migrant peoples it was deemed advisable to work together in solving the problems of these folks who move from state to state within a given year (G37, 25).

Comprehensive Planning for the Improvement of Education in Appalachia is another cooperative venture. Among their goals are comprehensive educational planning, regional educational service agencies, vocational education, educational manpower and early childhood education (G37, 25). The regional laboratory has been successful in assisting in implementing many changes in this area of the eastern mountain chain that is having such gross problems of poverty. Throughout this report many references are made to the educational cooperatives of this area, as well as to other programs mentioned above (A39; A49; A38).

The southern states of Texas, Louisiana, Tennessee and Alabama are working together in the Regional Educational Agencies Project in International Education. Another group of southern states is in a project entitled Facilitating Desirable Change in the Educational Program for Children and Youth (Regional Curriculum Project). The New England Educational Assessment Project aims to have a compatible data collection and processing system for educational assessment. The Midwestern States Educational Information Project is similar to the New England project in that they aim to obtain data for decision-making and reporting (G37, 26).

Several other programs are listed to give an indication of the scope of these cooperative ventures:

Multi-State Teacher Education Project (M-Step)

Interstate Certification of Educational Personnel

Guidelines for Improvement of State Education Agency Personnel Administration, Including Fair and Equal Employment Opportunities

Comprehensive Planning in State Education Agencies

Designing Education for the Future: An Eight-State Project

National Educational Finance Project (all states involved)

Policies for State Boards of Education (G37; B1, 1-2).

The Western States Small Schools Pr[illegible]ect is an independent agency financed by the states of Nevada, Utah, Arizona, Colorado and New Mexico. This organization is seeking to "provide leadership for the development of quality instructional programs that are appropriate to the small rural school and its setting" (W13, 3).

Though the Boulder Valley Resource Center involves a relatively small region, a Board of Cooperative Services is being studied for the area. Oregon, Washington, Utah, South Dakota and Wyoming have shown interest in certain phases of the project. The thought has been advanced that costs could be equalized and services could be extended through a larger base of interested parties (E5). A regional information system is at the heart of the program which has caught the imagination of other areas (B42). It is described in more detail elsewhere.

Another smaller unit is that of the Upper Red River Valley Educational Service Center which serves sections of North Dakota and Minnesota encompassing 17 counties and 100 small school districts.

The Upper Midwest Small Schools Project includes 15 North Dakota schools and one in Montana. These projects give indication of the practicality of cooperating on smaller projects even when one or more other states are involved (T1, 25, 33).

4. Institutions of higher learning and lower schools

Institutions of higher learning have played an important role in American education for years. Colleges and universities have utilized the cooperative concept via two basic avenues, that of cooperation with secondary and elementary schools and secondly cooperation among themselves in an arrangement commonly referred to as a consortium. The examples listed here either are in operation or are definitely in the planning, thus rendering illustrations of the cooperative concept.

Institutions of higher learning have a turst of resources that is vast, and in the past, only partially tapped. The professional training of the personnel is usually second to none, with specialists being available in most of the disciplines of academia. For instance in the field of education there are specialists in administration, curriculum, instruction, educational psychology, reading, special education and a host of other specialties. All too frequently these highly skilled personnel have lost contact with education as it exists in the "field". By getting into the field of education as it exists now, both the professor as well as the school would benefit. It would be a symbiotic relationship.

Similarly colleges and universities have material resources such as instructional television studios, media centers, FM broadcasting units, laboratories and exotic equipment, computers, outdoor education facilities and dozens of similar facilities and equipment. The same tax dollars that purchase these items, basically and fundamentally, purchase items and facilities for the high schools and the elementary schools. Otherwise the citizen pays taxes that go for all levels of education, thus why not achieve the fullest usage of these hard earned funds?

The schools of Worcester, Massachusetts, are major exponents of the community school in New England. The schools become the center of service to all people of the community. It is interesting to note the inter-connecting forces that are bringing about the program in this city. The resources of many public and private agencies are involved in the building of the system. The Mott Foundation, a philanthropic organization is helping as well as private institutions in the area. The Worcester Consortium for Higher Education is directly involved. All member schools share resources and experiences with other areas thus experiencing a cooperative endeavor from beginning to end (B57, 7).

The DILENOWISCO educational cooperative in western Virginia is a good sample of a regional cooperative working together with a college. The Clinch Valley College is definitely a member of the team working for the betterment of education in this mountainous area.

> This institution of higher education can enhance the effectiveness of this Cooperative by providing services in such areas as specialized training, sharing of resources and facilities, exchanging instructional materials and supplies, and by cooperating in establishing and developing special programs (D4, 15).

The college can give evening and weekend classes during the school year as well as summer school for the benefit of teachers and administrators. The people of this area are within commuting distances of the college, thus enabling educators to remain with their families while they take additional work. In addition the college can give workshops, seminars and institutes.

Another approach being utilized is the training of teacher aides at the college. It is suggested that diagnostic and followup programs could be developed with the asistance of professional personnel from the college. Professors are also acting as consultants in both instructional and administrative areas.

Added to these services are those of the Clinch Valley College library with its audiovisual facilities, seminar rooms, carrels and general library facilities.

Customized education programs are developed at the college, not only programs as the teacher aide instruction, but in paramedical fields, social welfare, counseling and guidance, parent programs for those with handicapped children and similar associated programs. This is a unique service that would be difficult to duplicate at some institution hundreds of miles away.

Thought is also being given to cooperative programs in audio-visual instruction such as computer assisted instruction, instructional television and language development (D4, 15-16).

Inasmuch as this section of the country is rather poor, it is not possible to maintain a teaching materials center as complete in its offerings as might be desirable.

> However, it is possible through the combined efforts of all school divisions and the college to establish an instructional materials center that could serve the area and enhance the teacher-learning process of all involved. Through the sharing of present materials and the purchase of additional supplies by members of the Educational Cooperative, a respectable laboratory center could in a brief period of time become a reality (D4, 16).

Individually they are able to do little but together many things can be accomplished that would be but dreams otherwise.

Some years ago the state department in Pennsylvania asked each of the 14 state colleges to allow a staff member to be a representative of the college and the state in attempting to tie-in the local schools in a curriculum development program.

The three counties of Greene, Fayette and Washington were involved with the California State College in the Area C Educational Development Center. It is reported that progress was intangible at first but at last communication was made and the center has become a forerunner in the state. The state college provided a curriculum coordinator, the counties a part-time worker, the state department a curriculum specialist and then the Appalachia Educational Laboratories placed a local director at the college.

Much of the credit for the success of the center is given to the present and former college presidents who have had sympathy for the program and its implication. Without doubt a program, no matter how good, is doomed to a precarious position and probable annihilation eventually, if the administration takes either a laissez faire attitude or an outright negative viewpoint. The administration must be sold in order for success to crown the efforts of innovators. Fortunately this center had administration with foresight (C62, 4-6).

The Learning Research Center at California State College is aiming to bridge the gap between theory and practice. It will house the Children's Component, a laboratory school to replicate the research findings, a Demonstration Research Center with response feedback and multi-media projection, Educational Media Center with closed circuit television, the Center for Behavioral Sciences and the Educational Development Center mentioned previously.

> To insure the success of the LRC (Learning Research Center), it will be necessary to have high-level coordination between the college and the local schools. The fifth component of the LRC, the Educational Development Center, will provide this relationship. . . . When it is quartered in the LRC, it will be in a better position to work with the schools as they develop educational programs (K15, 12-13).

It should be kept in mind that the area under discussion here is not the most prosperous in the country for again it is in the Appalachian Mountain area. Cooperation here is not a luxury but rather a very practical approach to a problem.

Among the cooperative programs of Nebraska is that of IMPAC. This center serves Educational Service Unit 4 in southeast Nebraska.

The five counties within this area have close to 12 000 pupils and over 650 teachers. The services are typical of such centers with a media center, health services and special education. They also operate a mobile unit for the service unit and its clientele. The media circulation and delivery program is carried out in cooperation with the Peru State College (K5, 1, 9-20).

On the opposite end of the state, near Wyoming, the Chadron State College is very active and acts as a center of activity in educational services. Cooperation between the college and the educational service unit is direct. No doubt a factor in this progressive program is an academic dean who is interested in media, for he has acted as instructional television coordinator for the college (C36).

Though discussed in more detail elsewhere in this paper, the University of Nebraska is the heart of the Nebraska Educational Television Network, which serves the schools of Nebraska from kindergarten through post-dental education. The nursing classwork also serves portions of western Iowa (N15; N19).

Obviously these are but a few samples of active support of the regional program as well as other media assistance given by the instutitions of higher learning of Nebraska.

The Institute for Development of Educational Activities (IDEA) and the League of Cooperating Schools was created to help bridge the gap between research and practice. Nineteen school districts of southern California, the University of Southern California and the Institute for Development of Educational Activities (IDEA) combined in a "framework for experimentation, research and dissemination" (H26, 68).

> The League of Cooperating Schools, as a planned strategy for research and change, unites foundations, university and public schools in new ways to create:
>
> *an educational laboratory for experimentation and research
> *a network for communication and dissemination
> *a facility for field testing and demonstrating innovations
> *a setting ror creative teachers to develop new instructional patterns and services (H26, 68-69).

In a program such as that briefly outlined above, other things being equal, there should be mutual involvement and mutual receipt of values from that involvement. Time and again the literature refers to the gap between theory and practice. One author suggests the time lapse at 50 years (K15, 13). For whatever the number of years, most agree that it is a number of years indeed. By closer cooperation and coordination the theorists can put their ideas into action without this gap. On the other hand some of these theories might tend to be a bit more realistic if there were immediate feed-back. Schools, no doubt, should tend to be more dynamic and not so static, as so often is the case. The professionalization of the teaching profession should not be hurt in the process, either.

In many portions of the nation, college students are involved in community programs of many types. Students from the Worcester College Consortium (Massachusetts), a group of ten institutions of higher education, give of their time to tutor pupils in the area. The program is called SCOPE--School and College Opportunity Program for

Education. Over 300 students have been identified for this program which assists pupils in mathematics, remedial reading and other fields (T10, 7).

> The project plans to bring administrators, teachers, guidance counselors, students and parents together in a team for mutual cooperation and involvement (T10, 7).

Here again the aim is to bring about "mutual cooperation" in which all gain by working together.

A similar program is in action at Andrews University in Berrien Springs, Michigan. Among the public service programs being sponsored by the Student Association is one to help those having educational problems. Pupils are being assisted in South Bend, Indiana, and Benton Harbor, Michigan, and possibly other towns.

The Wabash Valley Supplementary Educational Center is rather unique in that a state university has contracted with 20 school superintendents for educational services to be supplied to 50 000 pupils and teachers of the area. The services offered are typical of educational service centers.

The School of Education has been the contractor and the South Vermillion School Corporation has been the applicant agency. This arrangement has required a rather high degree of cooperation in that 20 different superintendents and their associated districts have had to agree on action in unison in the first place. This is obviously no mean accomplishment, and then to get a university to become involved in the community to such a degree is even more surprising. It is much easier to "talk about how it is done." To actually put these theories into practice is commendable. However, one of the objectives of the center has been "to provide continuous demonstration of exemplary educational programs or services to shorten the 'innovation lag'" (I10, 2).

The idea of the university or college becoming directly involved in the schooling of the area seems to be worthy of much deep thought. Could it be that programs such as found in the Wabash Valley center, California State College, Chadron State College, Clinch Valley College of the University of Virginia and similar cooperation programs might be of as much assistance to the collegiate institution as to the cooperating secondary and elementary schools of the region?

Among those suggesting a positive role for collegiate institutions is that of a Texas position paper. The paper suggests that "fruitful relationships" might exist between the educational service center and institutions of higher learning, "both within their particular regions and outside of it" (T16, 15).

In looking ahead as to what might be done in this area, one author has suggested that

> Institutions of higher education might become regional bases for scanning research and practice; developing model programs; cooperative field testing these programs; revising them; and helping school districts in installing and institutionalizing these programs (G53, 9).

One state department of education paper lists the following five advantages of cooperative programs as discussed here:

1. Demonstrations and demonstration projects
2. Internships
3. Sharing of educational resources

4. Consultant services and techniques for utilization and change
5. Teacher training (T16, 5).

The advantages listed encompass a large area and without doubt would make a major impact on a regional educational service center and its functions. Inasmuch as the service center is frequently the intermediate administrative unit, it would be in a position to give solid cooperation in demonstration projects.

The sharing of educational resources is a key element. Most of the ERIC Clearinghouses are located at universities. The special education media centers located in various large multi-state regions about the nation are on campuses, such as Michigan State University in East Lansing, Michigan. Inter-library loan plans are in operation about the nation, in which local universities are directly involved. Agricultural Experiment Stations and Agricultural Extension Offices are located in universities and work with schools and regions. The idea already is in action, but without doubt it has not been tapped to its fullest potential.

The availability of consultant services to a regional center and its component schools is an appropriate situation. Though the concept has been used it probably has not been really applied in a systematic way with a regular arrangement in most places.

Similarly the dissemination of innovative practices, administrative techniques, or psychological insights has taken a rather circuitous route all too often. It is here that the regional educational service center and its typical position of being the intermediate unit can foster progress.

The role of teacher training programs in institutions of higher education would be definitely of a partial order were it not for the schools, the school districts and intermediate offices. For instance the Berrien County Intermediate District in southwestern Michigan works directly with Western Michigan University, Michigan State University and Andrews University in the placement of teachers-in-training. On September 23, 1971 a banquet and conference was held at Andrews University for all professionals involved in the teacher education program in the area. Assembled were critic teachers, principals, superintendents, intermediate district officials and professors from the school. This is but typical of what occurs in many parts of the country. No doubt this type of cooperation is a virtual must if there is to be a really worthwhile educational program for the student teachers (A9).

Among the thoughts of those looking forward to further cooperation between the schools and colleges are those of Plowman who has suggested that schools of education could become "epicenters for preparing model resource units and pupil materials" (P20, 9). He further states that they could coordinate projects in creativity in education, mobilize teachers and instructional programs. They could become "focal points for developing and testing 'total approaches to full development of human potential'" (P20, 9). Regional counseling and guidance centers for gifted children could be implemented such as that at the

University of Wisconsin. The possibilities for expansion of cooperative enterprises between the two types of institutions are enormous.

5. Collegiate consortiums

Though the collegiate consortium arrangement might not be directly related to the regional educational service center concept, it cannot be ignored for several reasons. First it is a cooperative program and often encompasses a region. Secondly it is a fact that institutions of higher education have similar problems to those on the elementary and secondary levels. It is noted in this paper that many regional educational service centers are voluntary in their basis of operation, rather than mandated by the state. It should also be noted that some regional educational service centers are coordinative and do not have facilities as such. Additionally it must be mentioned that the services of these centers vary according to their needs.

Because of the facets mentioned above, the collegiate consortiums must be considered if a complete picture of the topic under discussion is to be appreciated. However, because of the complexity of this field, only a few features can be viewed, with observations noted as to their possible applicability to the regional concept.

Over a thousand colleges and universities in the United States are involved in a cooperative program. Some of these are quite involved while others are casual. It is significant that a majority of the institutions of this country see the need to work together. In most instances the consortium is voluntary and does not involve a "center" as such, though services are involved and coordination exists. The area of services is quite wide and tends to be more cooperative in scope than actual physical services rendered.

Usually for every action there is a reason behind the action. A need has been found and the act has been instituted in hopes that it will rectify a problem or fill a need. The consortiums that are in operation or in the planning stages usually follow three major categories. Moore's study lists these three categories as follows:

1. Academic and Professional
2. Administration and Development (Covers institutional planning, development and administration, and strengthening developing institutions).
3. Special Purpose, General, and Informational (Covers compacts, regional education boards, contract or special resource centers, and industry-realted consortiums) (M52, 7).

The participation in these consortiums is as listed below:

Major areas	
Academic and professional	71.0%
Administration and development	2.6
Special purpose, general, and instructional	1.6
Overlapping areas	
Academic and professional and administration and development	9.3%
Academic and professional and special purpose	8.2
Administration and development and special purpose (M52, 8)	0.5

It is interesting to note the relatively large percentage that cooperate in several areas. A concept is frequently tried in a sample area and if successful, expanded into other areas.

Salwak gives five basic purposes for which collegiate consortiums are organized. They are:

1. to foster a pooling of specialized instructional, research, and library facilities;
2. to institute arrangements for student exchanges in order to increase the availability of specialized programs;
3. to provide joint-offerings in certain complex, low enrollment subject-matter areas;
4. to provide a common front in seeking foundation or government grants and for influencing public policy in higher education and
5. to promote information exchange on aspects of instruction, research, and administration (S5, 492).

In fairness it must be realized that even the best of ideas and practices have their strong points as well as their weak elements. Many tools might be utilized to measure the success of a program. Possibly one of the better measurements is that of continued use, though even here the observations are not conclusive for there might be hindering factors that are not apparent to the casual observer. However, the fact that only 34 consortiums were discontinued out of the 1 000 + is evidence that something must be worthwhile.

Of the 34 discontinued consortiums, eight were multilateral and 26 bilateral with 107 institutions involved. Of these 34 about half were dissolved because their mission had been accomplished, thus leaving 17 that evidently had negative features. Even here the Moore study for the Office of Education showed that an amazing 90 per cent considered the consortiums well worth the effort (M52, 19).

TABLE II. UNFAVORABLE CHARACTERISTICS OF CONSORTIUMS
1965-66 SURVEY OF 1 314 RESPONSES

	Characteristic	Per cent Responses
1.	Lacks adequate financial support	20.5
2.	Has administrative problems: admissions, tuition, calendars, student travel etc.	19.2
3.	Some institutions do not cooperate fully	7.2
4.	Its need is not well established (or communicated)	7.1
5.	Geographic isolation of graduate center (special facility) makes for difficulty	5.4
6.	One institution tends to dominate	5.2
7.	Takes too much administrative time	3.7
8.	Incurs fear of loss of students to other institutions	3.5
9.	Is not well accepted by faculties	3.4
10.	Is not well thought-through	2.7
11.	Program does not follow original goals	2.3
12.	There is significant loss of institutional autonomy	0.8
13.	Other (M52, 18)	6.7

The observations listed are very significant, not only to those involved with consortiums but to any cooperative or regional venture.

On the positive side of the situation one should note that by far the majority of consortiums are still in existence and from the literature it appears that most are successful. About two-thirds of the degree-granting (bachelor or above) institutions are involved in one or more cooperative programs, which is some indication of a need that is being met, otherwise they would drop out of the consortium, for why remain with a program that is not producing results (M52, 5)?

TABLE III. FAVORABLE CHARACTERISTICS OF CONSORTIUMS
1965-66 SURVEY OF 1 314 RESPONSES

Characteristic	Per cent Responses
1. Makes better use of specialized or unique facilities and/or staff	71.4
2. Strengthens, enriches, or upgrades institutions concerned	65.3
3. Makes possible programs or quality otherwise impracticable	63.0
4. Broadens perspectives of institutions	59.4
5. Avoids unnecessary duplication by pooling of resources	57.7
6. Broadens range of courses	55.8
7. Provides additional incentives for students and teachers	54.1
8. Enables small institutions to enjoy advantages of large ones	52.5
9. Facilitates degree programs in interdisciplinary areas	32.9
10. Coordinated approach better serves region with graduate courses	31.4
11. Has proved to be an overall economy measure	20.3
12. Presents a united front in negotiations with other agencies	19.8
13. Other (M52, 18)	8.1

In checking Table II it will be noted that the highest percentage of responses of a negative character was 20.5 per cent, number two was 19.2 per cent and the remainder were less than 8 per cent. On the positive values to be achieved from consortiums, Table III indicates the lowest of responses was 19.8 per cent, while half of the responses were favorably indicated by over 55 per cent of the respondees. Without any doubt, the consortiums are being found to be a definite positive force.

Specialized facilities, equipment and exotic software are expensive to acquire and maintain. In a smaller school or district they may not even be available. The same is true with certain services as well as specialized personnel. In the elementary or secondary level this may be art and music, or certain industrial arts or vocational education programs that require expertise that the small school or district just cannot support. On a different level the problem exists in collegiate institutions in lacking certain scientific apparatus or laboratory facilities such as computers, observatory, linear accelerator etc. In personnel the small college may lack a professor in minority education or say a specialist in embryology. It would not be practical to employ a full-time professor in these fields, thus a cooperative arrangement may be the answer.

The enriching of the program would be an outcome of any level of education from kindergarten through the university. One of the common complaints of the rural school is the lack of enriching experiences, cultural advantages, breadth of curriculum etc. By working together this dilemma may be partially corrected. At this juncture it must be added that multi-media coupled with the cooperative movement can do much to rectify the dearth of enriching experiences in the rural or isolated school, as well as the small liberal arts college.

In the Office of Education study, several of the favorable responses concern the broadening of various facets of the program, such as perspectives, range of programs as well as making possible programs that would not even be possible otherwise.

The goals of higher education are somewhat different than those on the lower levels nonetheless much that is required in administration and instruction is similar, though varied in degree and placement. Generally a college or university has a much broader base of personnel, media, facilities etc. than a high school or even many districts, however, the requirements of the collegiate institution are also higher than for a high school, thus the needs are still present. The smaller colleges and universities are finding it particularly difficult to offer all that is required and yet maintain a realistic tuition and fee structure. Otherwise the similarities are one of degree and what is learned from the consortiums should be of considerable interest to those interested in the regional educational service center concept (M52; S5; C23; D11; B47; F4; K7; P39; N15; N21; B9, 5).

6. Summary and comment

Inasmuch as there are over 77 000 formal cooperative programs in all imaginable fields as well as over 1 000 collegiate consortiums in the United States, there is little doubt but that the cooperative concept is well established. Cooperation is seen in the local and regional community in such avenues as the schools and public health department cooperating in the school health program, park departments working with schools and districts in recreational outdoor education programs and in hosts of similar arrangements.

The cooperative/regional concept also is found in interstate cooperative programs. It may be found in regional programs that cross state lines. The idea is noted in programs that involve public, private and denominational organizations. The combinations are varied and give clear indication that cooperative/regional programs can work and do work.

Cooperative action requires a person or organization to give up certain elements of independence in order to gain the advantages of cooperative action. It is apparent that a balance must be achieved between independence and cooperation. Cases have been observed in which dictatorial powers distort the purposes of a regional program. There must be built-in safeguards so that all are served equitably.

The literature reveals that cooperative/regional programs are a convenience in many instances while in others participation is needed for survival in this era of rising demands, increasing prices and hosts of other problems. While it is noted that the concept is not without its drawbacks, the literature is replete with reports of success, enough so that further study is indicated.

The concept of cooperation has been accepted by a majority of collegiate institutions within the United States. This cooperation at times takes on a paternal form; at times it is the silent partner or it may be an equal among equals. In some areas the college or university is working closely with the local schools and school districts in providing consultive services, assistance with in-service education, cooperating in the teacher education process or similar professional services. In other instances the services are more material, such as the provision or cooperative provision of media services of various sorts. It might involve special education programs, health services or such administrative services as computer sharing.

The other basic avenue of cooperative action found in higher education is that of mutual cooperation among colleges and universities. This may be cooperation in administration, instruction, development, special purpose programs, informational projects, media consortiums and professional programs. Approximately two out of every three colleges and universities are involved in some sort of a cooperative program.

The success of this idea is demonstrated somewhat with the fact that only 17 consortiums have failed out of over 1 300 in existence. Another 17 consortiums, as of the time of Moore's study, had ceased to operate but that was because the special purpose for which the consortium was first organized had completed its purpose.

In addition the negative comments received from the well over 1 300 colleges and universities queried were much less than the positive comments, which also gives indication of the general satisfaction with the programs.

The two major negative factors mentioned were lack of financial support and administrative problems which were reported by about one out of every five schools. On the other hand over half of the institutions reported favorably on the following:

1. better use of facilities and staff
2. strengthens and upgrades the schools
3. quality programs possible
4. broadens persepctives
5. avoids unnecessary duplication
6. broader range of courses
7. incentives for staff and students
8. small schools have advantages of larger ones

The overall evidence seems quite slanted towards the usefulness of cooperative programs among institutions of higher education, as well as in cooperative programs with local secondary and elementary schools.

CHAPTER 4

RATIONALE AND PURPOSES OF THE REGIONAL EDUCATIONAL SERVICE CENTER

1. Introduction

So far in this paper there has been discussion of the major needs of American education. Trends in the various phases of education have been briefly given, hopefully in such a form as to lay the groundwork for an understanding of the movement that has evolved as a partial answer to the problems of education. The concept of cooperation as found in various agencies and applications to education have been noted. In this chapter the more immediate application to the region will be presented.

It has been realized that the local school or even the local district cannot provide all that is needed for a quality educational program. The modern intermediate unit of organization was implemented to help serve this function. The size of this unit has increased as the American people have become more mobile and the accompanying technology has made this situation feasible.

In the past the intermediate unit has been geared primarily to an administrative function. Currently the intermediate unit has been becoming more and more a service unit, though the services or even administrative functions vary considerably from place to place. For instance the ones proposed in New Mexico would have regulatory powers, while others are purely service in nature, such as those in Nebraska (B1; N17).

The central service function in many of the centers is media production, dissemination, collection etc., though many other services frequently are offered. In addition special functions exist, such as vocational education, research etc.

2. The regional educational service center, a cooperative venture

As noted, cooperative action in the field of education is a common occurrence, though of varying degrees of effectiveness and general coverage. Without doubt the idea has recently taken on new life and importance.

> The regional service concept is the biggest thing going in school government in this country today, although it is not universally recognized as a movement in all quarters (S54, 3).

A superintendent in the western section of Virginia has said, "The day is long past when a school system can take care of all its own needs. We must now take into consideration forces on the outside. I believe the Educational Cooperative is the coming thing" (S6, 20). In this same mountain country that is plagued with social problems, primarily of an economic nature, a superintendent has said that the cooperative approach is ". . . the only answer for some of our problems" (S68, 20).

Healthy competition and individuality are right and proper without doubt. In this age of mass communication and the mass media as a whole, the individual has virtually become lost. Mediocrity has become the mean, standardization the common thing and the "in thing" the watchword of the masses. However, there must be a happy meeting place between individuality and working together for the common good. One author has stated it thus:

> . . . I would like to offer the thesis that the striving for academic excellence in this and the coming century will be served better by arriving at a right proportion of competition and cooperation (S5, 490).

He then later adds, ". . . if today we simply hope we can succeed in cooperative efforts, by the twenty-first century there will be a demand that we succeed" (S5, 490). If this statement is true, there is little time left to dwell on the strictly isolationistic approach to educational action.

When speaking of the regional instructional materials center, which frequently is a facet of the service center concept, one person said it . . .

> . . . can offer the large, diversified collections, the specialized, highly skilled personnel, the involved and complex technical production, and maintenance functions demanded today. It is big enough to get the job done right, on an efficient management and operational module, drawing its costs from a broad enough customer-use base to be financially feasible and efficient (R21, 17).

Films and television can be made available through regional programs much more economically with a far better range of materials than each working independently (K18, 3).

Konick puts the values and necessity in a succinct way:

> There is clear evidence that this is the most practical means of taking advantage of today's educational technology, of updating curriculum in the classroom, of improving teaching efficiency, and of rendering the multiplicity of services which the modern school requires. Such a program offers equal benefits to pupils of all races and religions, wherever they live. Unless such strategy is adopted, we shall

> continue to have small islands of educational opportunity for the few in vast, neglected seas of substandard programs and facilities (K18, 14).

A New York report suggests that as the costs become higher, the need for cooperation becomes more apparent. "The economics, quality, diversity, and overall collective strength of regional programs provide the natural setting for innovation in service and instruction too often out of reach for the individual district" (S28, 246).

One author says that none but the largest districts can afford to "go it alone" (R21, 17). All too many districts are just attempting to provide the necessities, let alone provide the newer media, implement new innovations and make capital expenditures.

Frequently one finds each school in an area trying to do that which it feels is best, entirely independently, for all practical purposes. Sad to say, this is even found within a single school, with each department collecting and purchasing with little note of the entire picture.

> The old story of "too little and too late" reflects the current status of too-small, too-narrow, too-fragmented collections and services in most school districts, truly described as ranging "from primitive to inadequate" but rarely higher (R21, 17).

It might be observed that most large urban systems have centralized services or use a cooperative approach (B48, 283). How much more necessary it is for rural and small schools!

These smaller units just cannot do it properly by themselves. This is particularly evident when one notes the current emphasis on computers, television and similar equipment (S13, 45). From 1954 to 1964 six doctoral dissertations were completed at the University of Nebraska in the field of the intermediate unit of school organization. They all agreed that most of the state's counties could not provide proper supplemental services independently. Other studies have substantiated these studies (S13, 27; D19, 67-82).

Alone, no school division could offer what is being offered to the schools of the Dilenowisco Educational Cooperative in the Appalachians (D14, 10). In Pennsylvania a superintendent says that cooperative education is the only way it can be done economically and efficiently (T21, 15). A Kentuckian says:

> This cooperative thing is definitely one we need to continue. Anytime we can do something for half or even two-thirds what it would cost you in your individual school system, you can't afford not to do it on a cooperative basis (K8, 22).

Obviously cooperative action is not the entire answer; however, from the evidence, it appears that many schools are finding it to their advantage to work together in achieving the goals of quality education.

3. An evolutionary phase

Most would agree that the ideal situation would be to have all that is needed for a quality education at each school. When it comes to basic items, this can be done, for the most part, in schools that have an ample financial base. However, even these schools that have adequate funding find that certain service functions are not feasible in every school unless there are astronomical funding sources. On the other hand, there are many schools that don't even have the generally accepted basics, let alone some of the more sophisticated media items and other materials and services. There exists a great disparity. Typically certain sections of the country have more of a problem than others and even within some counties there is a great disparity.

The intermediate unit has been used more and more as a service agency to assist the schools in filling the gap between what they have and what they should have. In some areas the schools have cooperated on a voluntary basis while in others organization has come from the state in the establishment of regional areas.

By its very nature, a regional educational service center, whether it be an official intermediate agency or a voluntary cooperative, must remain flexible and be ready to adapt to the needs of the area. In a sense the regional educational service center is an evolutionary structure (S58, 7). Its ultimate goal, as Shigley puts it, is to provide comprehensive educational services to the single school system (S26, 86).

As the local school districts become more independent, the function of the regional center will probably turn more and more to research and planning, depending upon the locale (R6, 29). No doubt the intermediate unit will maintain fairly comprehensive service features for many years to come in rural and isolated communities.

4. Purposes of the Regional Educational Service Center

Probably it can be safely said that service centers vary considerably from place to place, according to the needs of the locale in which the center is located, but undoubtedly with more similarities than differences.

In the purposes and basic elements of regional or cooperative programs, the following eleven key points of the educational cooperatives of the Appalachians are of interest.

1. The improvement of the educational system can serve not only the individual development of students but the economic well-being of the region.

2. The scarcity of physical, financial, and personal resources in a school district influences its ability to solve serious educational problems.

3. The plan for the Educational Cooperative is realistic in terms of the isolation of Appalachia's schools and its shortages of personnel and physical resources.

4. The Educational Cooperative has been structured to facilitate responsiveness of the educational system to the student's need.

5. Sound educational planning requires development of both short- and long-range program objectives, means for implementing these objectives, and designs for the evaluation of programs. The Educational Cooperative provides structure that can facilitate these processes.

6. Innovative ideas must be supported by major administrative officers if they are to be implemented and institutionalized.

7. Educational crises in the Appalachian Region are multidisciplinary in nature, requiring the mobilized efforts of various specialists and practitioners.

8. Both critical thinking and action are needed in the resolution of educational problems.

9. Involvement of higher education personnel and state department officials in the planning, implementation, and evaluation phases of the Educational Cooperative can stimulate professional growth.

10. The program of the Educational Cooperative promises to redirect commitment to educational change so that it becomes a more rational process.

11. Professional educators should develop unified and rational power in order to provide effective participation with other social agencies in solving the pressing economic and human problems of the Appalachian Region (A40, 4-11).

The aforementioned elements are quite comprehensive and point out purposes for cooperative programs in these predominantly poor regions of the eastern mountain chain. Cooperation is not a luxury here, for they usually cannot afford such, but rather the concept has become a necessity in order to survive in this fast-moving age. Note that cooperation is for the well-being of the entire area. That which benefits education will ultimately further the aims and objectives of life in general.

The success of the idea is dependent upon cooperation from all phases of community life. It is not bilateral, but rather very much multilateral with facets of assistance coming from higher education, state departments, professional educators, administraters as well as other personnel resources. It is multidisciplinary from beginning to end.

Another source gives the following reason for establishing cooperative efforts, namely that of "an educational frame of reference that will help to set improved aims, goals and direction for the programs of the member schools (N41, 16). All too often the local schools become bogged down in a parochial situation. Often it is because of the financial plight, lack of innovative thought, poor in-service programs or similar stifling situations or a general lack of spirit. By cooperating with other schools there is apt to be cross-fertilization of ideas and a renewed sense of urgency to better the educational milieu. Several reports noted that the local schools in rural or isolated areas tended to be less innovative whilst urban schools or those in closer contact with each other and/or schools of higher education tended to be more current in thought and action. No doubt the smaller schools can improve the situation in which they find themselves. This is being done in many ways, among which one finds the cooperative approach to the solution of problems.

Still another author suggests the following purposes for the regional center, looking at it from the standpoint of the more structured approach, the regional educational service agnecy. In referring to this agency, he says:

> I feel it has a bright future principally for these reasons:
>
> 1. It is the most feasible approach, at this point in history and in the forseeable future, of overcoming existing inadequacies and of providing equal educational opportunities for all, regardless of birthright, and of protecting local control and local determination, important features of the American public school system.
>
> 2. It is an improvement in the structure of a state system of education, a necessary prerequisite to the implementation of many needed innovations in public elementary and secondary education.
>
> 3. It permits greater efficiency and economy in the provision of many educational programs and services.
>
> 4. It is consistent and compatible with a number of major discernable trends in both public and private sectors toward the area approach, and developments in inter-governmental relations.
>
> 5. It is supported by recent legislation or interest in many states in all parts of the country.
>
> 6. It has the support of a number of professional organizations and agencies. Among these is the American Association of School Administrators which in 1967 adopted a resolution

> supporting the Intermediate Unit, the strongest position, in my opinion, which this organization has ever taken in its support (S58, 78).

Obviously movements cannot be delineated clearly when it comes to their sources and it is also difficult to determine the impact of the outcomes. One thing is sure and that is the fact that professional groups as well as various governmental agencies realize that the cooperative/regional idea has something to offer education.

5. Features that are needed for operation of a center

The viewpoints vary to some degree as to what is needed in order to operate a regional educational service center. One basic reason is the great variety of programs being offered, different emphases, varied ancillary programs, the type of personnel, the fiscal base and a host of other facturs. With these and other possible factors in mind, several authorities are quoted or paraphrased as to what they consider essentials.

The study provided by the University of Iowa for the Linn County Board of Education in Iowa is one of the most comprehensive studies in the field of regional educational service centers observed. Within this document there are four essential criteria to be noted. In essence they are:

1. There should be sufficient pupil population to insure full and comprehensive programs that are efficient, effective and economical.
2. There should be an adequate financial base to support a comprehensive service program.

3. The agency must be staffed by highly qualified professional personnel. The first two criteria will affect this item, no doubt.

4. The constituent school districts should not be more than one hour in driving time from the center (15, 370).

As to the number of pupils required for item one, there is much discussion, but most figure in the range of 10 000 or more. This is discussed elsewhere, however, it is obvious that there must be a balance point where efficiency, economy and effectiveness are reached at the optimum degree. No doubt this is a range rather than a specific figure. In addition the Linn County study indicates the need for a strong fiscal base, which, along with ample pupil population, will make possible the hiring of a professional staff sufficient to operate a proper facility.

No matter how fine a program or how magnificent a facility, if it is too far away it probably will not be utilized to its fullest. Thus this report, as well as others, suggest a radius of about a one-hour drive.

Richardson renders some recommendations for the State of Illinois in regard to cooperative ventures.

1. The State department should take the lead in the operation of voluntarily organized cooperatives.
2. School boards and administrators should encourage their development in their areas.
3. New taxes should not be levied, but rather a coordination and utilization of other funds.
4. There should be a minimum of 15 000 and preferably 25 000 in a cooperative.

5. People of all walks of life should participate in the development of objectives for the center.

6. A full-time director should be employed and be responsible to the educational service board only.

7. "Consideration should be given to the feasibility and appropriate structure of a state plan for the formation of cooperative units" (R11, 101-102).

Note in particular the recommendation that new taxes be not levied, but rather that other funds be utilized. At this juncture in our national history most all are about ready to break under the tax load. Tax rates are becoming almost ridiculous in some areas. It is thus particularly appropo to find ways to increase educational value for dollar expended.

Among other criteria, one report suggests they have an elected lay board. Provision should also be made for additional districts to share in the costs. This is a particularly good observation in that most efforts in the field of regional educational service centers are voluntary in their organization even if the region has been set-up by the state. Local districts may or may not belong. The organization must stipulate the procedures and costs involved for adding districts (B36, 60).

The inclusion of all districts in an area is a basic criterion for another region. This area should be a socio-economic area and should be coordinated with other areas in all governmental planning. Flexibility and adaptability are also stressed as they relate to demographic changes. This would affect the regional characteristics as social revolution occurred, such as rural vs. urban growth etc.

As to whether joining should be coercive or not is up to question (G43, 10). The BOCES units of New York offer elected participation, though certain state funds are not available unless the local district utilizes the BOCES services (S44, 7).

The Wisconsin program stipulates that enough districts are to be in a region so that non-participating districts won't inhibit any of the programs. Furthermore districts are not to be divided nor are pupil concentrations to be split. As of this writing the state has 19 such centers.

Butterworth and Dawson, among the earlier writers in this field, mention three essentials for an intermediate district, which is tantamount to an educational service center in many states:

1. Adequate enrollment to offer an efficient and economical program.
2. It should represent a community of interest.
3. It should be representative of the people (B61, 359-360).

The Wisconsin stipulation that districts or regions do not split natural population groups is similar to Butterworth and Dawson's viewpoint in that a community of interest should be in existence. Obviously progress would be stifled or curtailed if this community of interest did not exist or couldn't be propagated.

Other criteria exist also and are covered in more depth in other sections of this paper. In general it can be said that the regional educational service center exists to bridge the gap between the state and the local district, in some cases to act administratively but more often in recent times to act as a service agency. Its form varies to accommodate local desires and needs.

6. What are the benefits of the regional educational service center?

The benefits enumerated here are not documented as fully as might be expected in that in some cases entire chapters have been alloted to their discussion in this paper. At this point it is hoped that the reader might gain a perspective that would possibly be lost were too many quotations and other evidence introduced.

A. Financial

Proponents of the regional cooperatives usually point to the financial savings to be accrued by working together. Efficiency and economy are achieved by cooperative action.

Via pool purchasing, advantages can be gained in better price quotations for even when a wholesale price is given, the price given frequently is lower yet when multiples of an item are ordered. Gains are achieved in shipping when larger orders are received by a company. Per unit costs are lower when quantities of items are involved in an order. At times customized orders can be filled inasmuch as a larger quantity allows the service to the buyer.

Standardization of equipment, such as audiovisual projectors, makes it easier to stock replacement parts thus cutting down on parts inventory as well as gains from ordering larger quantities of those parts that are stocked. Original equipment purchases are usually obtained at better prices. Maintenance time is shortened inasmuch as the service man achieves more skills in repairing that product, thus administratively there is time saving, which is dollar saving.

By cooperating in maintenance of equipment, whether it be buses, lawnmowers or projectors, costs can usually be lowered substantially. Equipment can be repaired locally rather than be sent away to a service center. Local labor help frequently is lower than that in the nearby city, thus saving financially. Inasmuch as local repairmen are available, there is closer control on personnel quality, thus giving indirect savings in more efficient help.

Inasmuch as local consultants are often available, transportation costs for "imported" consultants may be reduced. By cooperating in the services of these personnel, overall costs can be cut. Time utilization is bettered, thus deriving a savings.

One director claims that cooperatively they can get 50 to 100 per cent more from a dollar than if working independently (D9, 29). Others give a figure of about 30 per cent, but in most cases it is claimed that money is saved (S58, 12; A40, 12).

B. Instructional

Educational and instructional opportunities are extended by cooperative action, it is claimed. There is equalization of the opportunities. Large city schools often, and suburban schools more frequently, have quality programs inasmuch as they have the facilities and personnel backed by adequate resources to offer a top program. The smaller schools such as found in rural or isolated communities cannot, on their own, usually offer such quality or variety of course offerings (I4, 422).

Many programs are made available through joint action. Were it not for this cooperation, the individual schools or school districts could not offer such things as certain science courses, exotic fine arts course work, sophisticated industrial arts or vocational education courses (R11, 73-74).

Specialized instructional programs are available when the parties involved cooperate in sponsoring such. This includes the field of the educationally gifted, mentally handicapped, socially or motivationally handicapped, physically handicapped as well as other similar programs.

C. Media

Certain audiovisual equipment and software are available to most schools or districts, though even here not too much should be taken for granted for some smaller schools are woefully inadequate in their media inventory.

There seems to be a correlation between the growth in media and the cooperative/regional movement. Certain equipment and software just is not feasible for a small organizational unit to purchase. Even if the money were available, it might not be a wise use of funds to purchase such. It has been stated that the intensified usage of media has been an outgrowth of the educational service center, which very well could be true (G41, 23). Concurrent with the rise of the cooperative program, various facets of the media field have made great strides, such as in instructional television which hardly would be possible were it not for a greater population base.

Much audiovisual equipment would not be available, nor would much of the software be available were it not for cooperative action. In some cases the software would be available but with very limited selection (G41, 94). A regional center is able to offer much sophisticated equipment and software that no single school or small district could afford, thus lending depth and variety to the program.

It has also been noted that many schools take advantage of the newer media more readily when it is available to them, and in particular when it is available with little fuss (R11, 73-74). Frequently consultants assist with production, utilization and other phases of the program. With these resources available a teacher tends to be motivated to accept newer media and more likely to accept other innovative ideas more readily inasmuch as so many of the newer educational concepts utilize media as components of the program.

D. Personnel

It is suggested that teachers gain valuable experience in contact with professional colleagues and are stimulated in growth when there is cooperation between intermediate units and a college (S19, 8). It would stand to reason that a teacher who lives in an isolated area would tend to become stale and lose motivation, unless he were strongly motivated otherwise. By being involved in a definite program of in-service education, by having a treasure of media at his disposal via the media center, by having assistance from the consultants at the service cneter and/or cooperating colleges and universities, chances are that he would be more strongly motivated. His teaching most likely would show this as he acquired innovative concepts, as he utilized new and fresh media in his teaching--because of its ease of availability, as he received ideas and techniques from colleagues, consultants and professors.

A superintendent in northern California budgets 32 per cent of his allocation towards regional projects. Among his reasons he says:

> We are able to enhance the resources available to educate and focus in on our problems with highly qualified personnel. In providing resources of personnel, we are able to be more selective from a large cast. This regional cooperation increases the capacity to finance outside resource personnel (R18, 164).

In many cases these consultants and resource people would not be available for how could a school district of several hundred pupils afford such? By cooperating they can frequently obtain such services.

E. Research

It is felt that the regional educational service centers can bring in improved ways of "building receptivity to innovation" as well as "introducing and sustaining new practice and research findings in education" (A40, iv). Some feel that the centers are very promising in bridging the gap between theory and practice, which is running years, even decades behind.

With the educational center available with its specialists, local research would be fostered as well as production of media items utilizing the findings of such studies. The center would act as a catalyst to creativity and professional growth (G41, 94). Sophisticated equipment, such as a computer or computer terminal, would aid in statistical studies. Other computational equipment would allow educators to avail themselves of the tools of research. What local school could afford this equipment as well as consultants aware of the techniques of the field?

The local schools and school districts are able to become a closer part of the mainstream of education and thus the general level of education is enhanced.

F. Protect and promote local control

Though there is much coordination of effort in regional programs, yet the local schools and local school districts maintain local autonomy. This possibly is even more so in the voluntary cooperatives, though the structuring of many, if not most, of the regional, intermediate districts is quite permissive. Three of the states that are among the pioneers in the service center concept on the intermediate level, have elected participation in the service unit. These states are Nebraska, Wisconsin and New York.

In the past the intermediate unit, which usually was the county, has had much administrative power whereas now the movement is definitely towards the intermediate unit being a service institution. This is one of the big points given in favor of the unit. Local control must be protected. This notion is seen very definitely in the decentralization of power as seen in New York City.

The goal is to achieve the benefits of largeness and yet to maintain the individual position as much as possible. This is seen in administrative as well as curricular movements of the day (S58, 12).

G. Less duplicated effort

This benefit is mentioned often in the literature. Most educators are painfully aware of the fact that certain exotic equipment with equally exotic prices must be purchased for science classes. Similarly sheet music for the band is bought to be used for but a few weeks and then gather dust. Illustrations could be given by the score, but it does not help to balance the budget. Certain costs are quite well fixed if a quality educational program is to be offered.

Certain specialized personnel are required for various programs, such as remedial reading, speech, strings as well as other fields. Typically in the small school, if the person can be obtained in the first place, he spends but a portion of his time within his specialty and the remainder of the time supervising study halls or teaching in a field that he is not qualified to teach. Yet down the road 10 miles or so a similar situation with similar personnel exists.

A case might be presented as to facilities, such as expensive science laboratories, specialized physical education facilities, shops and the like. Frequently where the school is able to afford these costly facilities in the first place, they also use them but a fraction of the time, thus really not gaining their full dollar value from the investment.

The above is but a sampling of the duplication of effort that exists all too often. By cooperating within a region much of this type of duplication of effort can be eased if not erradicated in some instances (R18, 164).

H. Develops a cooperative spirit

This is rather difficult to measure, but it can very definitely be felt and observed empirically.

Much of the literature brings in comments regarding the spirit that permeates the region as the schools learn the advantages of working together as a team. Education then becomes a total effort, rather than piecemeal or parochial in the strictest sense. The gains are more than in dollars and cents, but a renewed spirit of cooperation for the ultimate as well as immediate good of all who are involved (G41, 28).

I. Needed change agent

Stagnation often sets in when folks get wound up in their own local doings. Innovative ideas are noted, possibly, but it is difficult to get off "dead center." The regional center is close enough and directly enough connected to the school or school system that it can act as the change agent in bringing in fresh approaches to education. It is an agent of innovation. Personnel are available to assist. In-service education opportunities are available. The college professors, hopefully, have come down from "their ivory towers" and are becoming involved in education directly. Media are made available as an adjunct or tool for the implementation of change (S58, 12).

J. Better utilization of existing resources

Much of what is involved in the work of the regional center is not that of spending more funds, which are becoming more and more difficlut to obtain at this time, but rather a coordination of efforts and resources. In many situations these resources are within the schools themselves. In other cases they are within the community. The regional center acts as a clearinghouse for these resources, whether they be personnel, facilities, equipment or materials (R11, 73).

K. Joint services

The regional center can arrange for shared services, shared personnel, shared facilities. In many cases the programs that are then available because of joint use would not have been available otherwise. Shared use is found in transportation, vocational education programs, substitute teacher agencies, outdoor education facilities, music and art programs and many, many other similar situations which are discussed in this paper.

It is the regional educational service center that acts as the coordinator in many of these agreements and in other situations as the actual provider by contract (R11, 73; B1).

L. Support services to teachers

Many services would not be available were it not for the regional center. These support services include special education for pupils that cannot be properly cared for in regular classes, or if maintained in the regular classroom, assistance is available from consultants or itinerant teachers. Health services, such as ear and eye screening, health education assistance, dental clinics and many other health services that many schools could not manage on their own are available. Other support services would be media production, media utilization assistance, film ordering etc. Subject matter consultants to assist in problem areas are available in many centers.

All-in-all, the regional center can render these "extras" that are so essential to a really worthwhile, ongoing educational program (E14, 2).

M. In-service education

In many cases the regional center is the major in-service education agent. Because of its larger pupil base with its accompanying advantages, the center can provide specialists in various fields, either from their own personnel or via other organizations. By having a larger base from which to operate, it is feasible and practical to attract well-known authorities that a small group would never be able to afford on their own.

The in-service program of a regional center typically would have more plan than one operated in an individual school or small district which is wrapped up in local administrative and curricular problems. The curriculum specialist at the regional center would have the background to direct such operations so as to reach their fullest potential (E14, 18).

N. Total educational needs

The regional educational service center is, by virtue of its position, in a position to better coordinate the educational program of the region. If it is left to the local schools or local districts there are more likely to be serious deficiencies. If left to the state the tendency is to be lost in the "system" and the region would similarly suffer. The intermediate unit is usually structured to encompass a natural area, a region with common problems and a community of interest in fields other than education. Regional planning is the growing concept in many disciplines and phases of life. By attacking problems collectively, the solutions are more likely to be forthcoming as a total program (R11, 73-74).

O. Co-ordinator in leadership activities

The agencies that have developed in modern life have been multitudinous, so much so that one gets lost within the institutions. The regional center can act as

> An improved design for the provision of leadership services by state departments of education, institutions of higher education, research and development centers, and other agencies and institutions (A40, iv).

One should consider the many worthwhile organizations that are in action, such as the Educational Resources Information Center, the special education resource centers such as the ones at Michigan State University and George Washington University, the many regional educational laboratories such as the one on small schools and Indian education at New Mexico State University or the Northwest

Regional Laboratory in Portland, Oregon which has also been doing considerable work with small schools. Within each state there are many agencies, including many departments of the state department of education, that provide assistance as well as administrative power. The regional educational service center can provide coordination and liaison in these fields of services also.

7. What are the problems of regional educational service centers?

As with any promising idea, there are drawbacks to the cooperative approach to the solution of many of education's problems. Not all is easy and 100 per cent positive. Weak spots do exist and it is thus necessary to be aware of these so as to negate as many as possible in any implementation of the cooperative concept in the regional program. It could even be that the disadvantages are such that the concept should be abandoned. In the atmosphere of objectivity the negative aspects must be examined.

A. Financial

Many of the intermediate units as well as various media centers have been subsidized by the federal government via the assorted Title funds. At this writing, the funding has been cut drastically so that it is much less than in the sixties. Largely because of this curtailment, many units have closed because it was government monies that allowed the implementation of many services and the acquisition of many materials that would not have been available otherwise. There is little doubt but that the various Title funds did much to implement literally hundreds of programs in all phases of education, including media and intermediate centers. It was during this era that media came to the fore and it was also during this period that the intermediate unit gained a new position, a revival and invigorating spurt of growth.

It would appear that intermediate units cost more than their existence warrants, otherwise why did service centers close down? There are several possible answers. Many of the areas that received these services did not have them, to any degree, in the first place, thus the term used often--supplementary service centers. External funding sources kept them going. When those funds ceased, so did the service center.

It might be also that the efficiency was not what it might be. With easy money present, too short deadlines for purchasing of materials, untested products available--often with exhorbitant price tags, there were bound to be repercussions. Here and there much was said regarding huge sums of money to be spent within X number of days for items of which the purchaser might be virtually ignorant. Anyone having anything to do with this situation could add to the story list. Few would argue that much money was spent unwisely for equipment and material that was not really needed in many cases, or if needed, no one knew what it was or how it was to be utilized.

The experienced buyer also realizes that many companies overpriced their materials and equipment in order to take advantage of the plentiful government funds. The situation has not ceased to exist as of this date. Documentation for these statements is almost superfluous to one in the field. Empirical evidence may be gained from any administrator or company representative willing to face the issues.

Some areas are so poor that government monies are about the only source to keep service activities going for local funds are just not adequate. External subsidies are required for the operation of a service center in these situations. A West Virginia center figures a per pupil cost of five dollars annually for basic services. There is some question if even this amount can be raised independently (D13, 29). One can't but wonder if even here the cooperative idea might not assist--and evidently it does in poor areas such as the Appalachia area of the East (A39).

Evidently part of the problem is one of having money available a bit too readily without adequate education in its proper utilization. Keep in mind that one of the chief advantages, according to some regional proponents, is that the centers can save money. Yet, here, one of the disadvantages is that of financial costs being excessive. One must of needs know for what the funds were expended and how much real "cooperation" existed among the member school districts. Was it primarily a federal hand-out, or was it an intelligent, cooperative venture in which the available funds were utilized to make long-term investments? Of course the very nature of the federal funds and the "strings attached" made this virtually impossible at times.

Another facet of this problem is brought out by Shigley in referring to rural northern Georgia, in which he says:

> . . . the intermediate unit could be designed and justified only after school system reorganization had achieved reasonable goals. Otherwise, the intermediate unit may be used to compensate for inefficient local school systems and to perpetrate such systems (S26, 76).

Could it be that some of this has occurred in some areas? Money will not cure all problems, including the woes of education. It is quite obvious that the large infusions of federal and state monies into ghetto situations has not been THE answer, though without doubt money is a necessity.

Much of what is useful in the cooperative-regional concept is of an organizational nature rather than one of infusion of money, worthwhile as that may be. Possibly the basic concept was never really internalized in many intermediate units.

B. Instructional

One of the objections is that the regional educational center would impose a region-wide curriculum which it is felt is unreasonable as an objective (G41, 100). The curriculum should be customized for that area or school. Of course here one must wonder how far this personalization of the curriculum should become. Without doubt standardization can become a problem in any field, including the field of curriculum development.

A similar objection is that of the depersonalization of the program as it becomes big. Teachers in specialized areas come to the schools or the pupils are bussed to other centers to study in some specialized discipline. With most educational service centers there is a program of district reorganization which usually entails the elimination of small schools and inefficient school districts. A good example of this is found in the Great Plains School District Organization Project (S13; G43).

With these various procedures, administratively, curricularly, as well as instructionally, there is a real danger that the problems of the city school will be realized. This situation must be quite acute when a child has come from a one-teacher school out in the Sand Hills of western Nebraska!

These dangers must be faced and adjustments made to accommodate all pupils, as much as possible, as individuals in every sense of the word. The fear, no doubt, is a valid one.

C. Media

Having a media center away from the users has some inherent weaknesses. It is almost axiomatic that that which is convenient and useful will be used while that which is difficult to obtain will not be utilized unless there is a very strong motivation to obtain the items needed. No doubt, ideally everything should be available in the local school. Most will agree with this idea. The weakness with this argument is obvious, for it is unrealistic in most situations to find such ideal conditions. The money is not available to purchase the materials in sufficient variety or depth to make a collection really valuable. A similar situation exists frequently in equipment. Without doubt some locales will be able to have more than others, but overall, few schools can have a comprehensive collection.

Equipment standardization would be difficult for there are so many personal likes and dislikes in brands and varied features of each. Teachers would be dissatisfied if they had to use this brand over another brand which they had previously used and liked. Each school audiovisual expert, real or self-styled, has his own opinions and might not care to compromise. In general it is argued that it is useless to attempt standardization with so many varied tastes and opinions.

Another argument in the negative is that centralized purchasing of equipment tends to lower overall quality in the long run in that a manufacturer becomes smug in that he has a contract. Competition is narrowed or eliminated. Service on this equipment also tends to deteriorate as the company settles down in its complacency.

One center mentioned the difficulties encountered in loaning out equipment and thus curtailed loaning to just the videorecroder in that it is an item that few of the schools had (G41, 100). It must be admitted that equipment does not function as well nor does it function as long, when various people, many of whom know little of the working of the equipment, are handling it. However, even within the local school or district similar situations exist. The problem would be somewhat compounded by having to move it from school to school.

The booking and delivering of media is beset with many complications. The logistics involved is a headache. Delivery systems are frequently expensive. Dependence upon parcel post is difficult, not only because of the scheduling but damage in transit, unless a very good packing system is in use. Bus express may be used but here as in other public systems, items all too often get misplaced. These situations must be considered very soberly if it is decided to venture into a regional service center (E29).

D. Personnel

Consultants and other center personnel frequently do not like the continuous travel involved. This can be of particular discomfort if there is much driving on icy roads during the winter months. Though driving in hot summer temperatures can be uncomfortable also, air-conditioning can quite readily rectify this problem.

With year-to-year financing, dependent upon grants or yearly contracts, which is characteristic of some regional educational service centers, the distress to professionals and technicians can be quite objectionable. It is thus that some centers have found it difficult to recruit and hold qualified personnel. Most personnel wish some stability and tenure, not wondering from year to year whether they will have to move on to another job--if one can be found that late in the season. Of course this problem is not unique to educational service centers, though it has been common in cases where the center is financed mainly by Title funds of the federal government, which are known quite widely for being rather erratic (P39).

E. Selection policies

The comment has been voiced that the selection of materials is done by the central office rather than by those in the field who are to use the materials. As an operation becomes larger, the local people are left out when it comes to any voice as to how the money is to be spent. It becomes somewhat like a bureaucracy (B12, 55). There is a danger here. Communication lines must be kept open.

F. Autocratic administrators

Again it is noted that there is a fear, or in some cases a realistic situation whereby a power structure is formed. Local schools or small districts find themselves engulfed by autocratic rule and red tape. Open competition exists in the power struggles for top positions. Meanwhile the component schools and districts become but a number and lose their identity. Local control is lost and local voice is virtually engulfed in the large corporate structure of the intermediate agency and its bureaucrats and politicians (O13, 14).

Obviously it is not necessary nor is it inevitable that this type of situation exist. It is possible it can exist, however, thus all planning should keep in mind that this danger lurks.

G. Lack of community involvement

This problem is similar in its roots to several others previously mentioned. It is one of the situations that seem to exist all too often when things grow too big. The lack of community involvement in the planning as well as operation of the center can be very real. This is a decided lack which will be felt in one way or another. The populace must feel a kinship in order to place their full support behind a project (K5, 20).

Successful operations tend to show a decided interest in the community and its desires and needs. Public relations must be a definite facet of the entire operation from early planning stages through full operation.

H. Lack of cooperation with other community resources

A typical community has a host of public and private agencies, such as colleges, associations, various governmental branches on different levels as well as individuals with capacities for good. The charge has been made that some regional educational service centers are virtually oblivious to these other agencies. In other cases services are duplicated or there is lack of coordination with these other groups. Where this is the situation, it is quite obvious that the center has lost sight of a major purpose for its existence, namely that of cooperative action for a partial solution of educational problems. The cooperative action is not just internal, but rather region-wide among all agencies and avenues of action.

I. Legal restraints

In some sections of the country it is not possible to operate a regional educational service center as it is commonly conceived. This is because of the state laws and their archaic setting. At this juncture the problem is mentioned but not expounded.

8. Trends in development

In recent times the intermediate level of administration has been one of minor importance compared to the district and state levels.

The service center function has not existed as such, other than incidentally. It is only within the last few decades that the new version of intermediate organization has come forth with such promise. In the past the county sufficed for this level and this unit was usually regulatory in function. All too typically it was staffed by non-professionals and was a political office. The concept of service was not a key element of its philosophy.

The following quotation briefly summarizes the situation as it currently stands:

> * Abandonment of the intermediate unit known as the county system of schools.
> * The creation of a new, larger, and more serviceable intermediate organization.
> * A distinct movement away from regulatory to service functions.
> * The development of multi-county service districts.
> * The providing of all programs and services which necessitate a large pupil base and/or a high per pupil cost to make possible both the quantity and the quality of educational opportunities with efficiency and economy of operation.
> * The providing of cooperative and coordinating services for all member districts.
> * Increasing emphasis on research and development through the area agency.
> * Development and provision of long-range planning for education under the leadership of the area service agency (G43, 1).

Keep in mind that these are generalizations. For instance, in some sections of the country the county is still strong inasmuch as the county encompasses a large area or a rather remote area where a larger division would not be feasible or really advantageous.

Another change that is being observed on various levels is in the use of the term supervisor being lessened and being replaced by consultant. Again the service concept is seen here. Education as a profession is probably coming of age. Of course in this professionalization process there must come a maturity of hierarchy. This maturing is also observed in administrative relationships as well as in relations among peers. Education as a whole is becoming more sophisticated and with this growth there comes the demand for more services, some of which can be provided locally and others which are beyond the resources available. It is thus that the schools and school districts have gone to cooperation through a regional organization.

9. Change versus status quo

There have always been those who are most comfortable when they can do it as it has always been done: "If it was good enough for grandma it is good enough for me."

> The greatest obstacle to good education is our willingness to settle for less than the best. Too readily we accept the belief that many necessary educational services cannot be provided in our community (N17, 1).

Education, as with other fields of endeavor, has those who are slow to change, those who fear the loss of their local power, those who do not wish nor seem able to cooperate with their colleagues in achieving that which will be of mutual benefit.

> One of the theoretical concepts of recent vintage which has been translated into reality all too slowly because of these selfish attitudes has been the Educational Cooperative. In a few states, such as New York, cooperation among school districts has been, for all practical purposes, mandated by law. But far too many state educational agencies still defer to local autonony at a time when they should be actively engaged in motivating, even requiring, school districts to implement more effective use of both financial and human resources through cooperative planning and programming (013, 12).

Anyone familiar with educational problems today realizes the need to find better ways of instruction and improved administrative techniques--without increasing the fiscal outlay, and if possible to reduce costs. In scores of instances, yes in each day's newspapers come reports of dropping programs, laying off teachers, ceasing certain services or cutting down on school days. Change must come!

Another study made in the New Jersey area suggests that part of the resistance to cooperative use of services might be overcome if the service agency were separate from the intermediate unit. It would appear from the context that a problem exists regarding service functions and administrative-supervisory functions. All about the country the trend has been to divorce these two functions, though in a few instances they are one and the same. If the intermediate unit is administrative and regulatory there seems to be considerable evidence that it loses some of its effectiveness in the service area (H21, 7).

A central Illinois study supports a concept that is commonly believed by many. Only one school using innovative curricula turned down the idea of joining a cooperative, while fifteen schools using innovative curricula adopted it. On the other hand 23 out of 24 schools using traditional curricula rejected the cooperative idea (H17, 138-139). This would seem to indicate that schools that are innovative and progressive in one area tend to be the same in other ways also and those who are tradition-bound in their thinking tend to turn down new thinking in various other areas.

Then what causes this situation? Obviously a psychological or sociological treatise cannot be given here; however, a few of the elements will be presented for thought. Regarding the stagnation that sets in all too often, one author mentions the following:

tradtionalism
educational bureaucracy
insufficient time
community apathy or resistance
accepting the status quo
insufficient financial resources
insufficient personnel in number or quality (I5, 425).

Various of these problems have already been mentioned. "Not enough" is at the base of many of these elements that bring about stagnation.

Where there is vision, cooperation can assist in the remedy of these shortcomings. Obviously there must be a good public relations attitude among those who are fostering growth, particularly towards those who are resistant to change. Most people respond when they can be shown that something will give them improved service at little or no increase in costs. Where there is an increase in outlay they must see a definite value commensurate with the increase.

Leadership, without doubt, is to a great degree responsible for growth. The literature frequently mentions the resistance of administrators. They are fearful of losing part of their "empire." Cooperation does require the giving up of certain perogatives. Compromises must be made in order to achieve goals for the mutual good of all concerned. Long-range goals require certain short-range goal modifications in order to make the necessary long-term growth for all concerned.

10. Summary and comment

Inasmuch as the local school district cannot offer all that is needed for a quality educational program, a need was felt to find a way of bettering the situation. The intermediate level, which has existed in most areas as an administrative office began to take on new meaning. In many cases the local counties have grouped together to form regions in which increased quality in education might be obtained by cooperative action.

Most agree that all services should be available at the local school, but obviously this is not feasible nor would it be a wise application of funds if the financial resources were available. Nevertheless the intermediate unit is an evolutionary structure with the aim of bringing as many services directly to the schools and school districts as possible. No doubt in some parts of the nation the regional educational service center will be here for a long time to come inasmuch as the schools are remotely located and/or are poorly funded and lack other basic resources.

The regional educational service center assists the member schools in obtaining the best of education by providing services, whether material or idealogical. It acts as a catalyst to action. It is a coordinating organization. It is a supplement to the local school and school district, offering that which is not available locally.

In order for these units or centers to operate successfully, they must have an ample pupil base in order to be efficient, effective and economical. They must be amply financed as well as be staffed by qualified personnel. In addition they must be located within easy access of the potential patrons.

Generally the benefits to be derived from these centers are financial savings by avoiding duplication, scattered material and equipment orders and other waste action. Some figure as high as a 30 to 50 per cent financial savings through cooperative action. Instructional gains are made by joint use of personnel and facilities. The media phase is frequently the center of the efforts of these regional enterprises. Services are available that many schools just have not had previously. Research and other administrative services are made available where little or nothing was done before.

There are possible problems that have been suggested. Some argue that the savings are not so great. In many cases the federal government has paid the bill and the local groups have done little to help themselves. Some feel that standardization can be detrimental. Centralized purchasing, processing and production stifles independence and creativity. Some fear a prescribed curriculum. Center personnel like to be settled and not have to be on the road so much. Others fear dictatorial administration and in general there is a sense of being engulfed in the "machine."

Overall there does seem to be a trend towards cooperative action via the regional agency or some modification of it. The county unit with its regulatory and administrative function is giving way to a regional service agency. In many cases entire states have been organized along these lines, such as found in Nebraska, New York and in Wisconsin. In other states variations are found, as in California, Pennsylvania, Oregon, Ohio and Texas.

There is a definite need to be aware of the fact that we live in a changing world. Education is required to be up with the times. There must be a willingness to accept change and innovation where it is obvious that such is needed.

CHAPTER 5

ORGANIZATION OF THE REGIONAL EDUCATIONAL SERVICE CENTER

1. The regional educational service center

Educational service centers are usually organized in one of two different ways. One is the strictly voluntary cooperative arrangement where two or more districts negotiate on their own. The other basic type is one in which the state is divided into regions, usually of several counties each. Large cities generally are of sufficient size to operate their own program, though at times even they are part of a regional organization for specialized services.

The more common type of educational service center is based on the intermediate level of organization which is typically of the second type mentioned above. At one time this was usually the single county, but in recent years this has changed to a multi-county unit. Several states have divided the state into multi-county intermediate regions. Among these states are Wisconsin, Nebraska, Michigan, and Texas, as well as others.[1]

In some states the legislation is permissive, that is counties may have compacts for cooperative activities, which is the case in

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[1] See maps in Appendix.

Iowa (I4, 2). In other states such as New York a district is indirectly penalized for not availing itself of regional services. The Board of Cooperative Educational Services (BOCES) operates as a voluntary service agency. However, its services must be cleared by the state and certain services offered must be utilized by the local districts in order to receive state aid (S44, 7).

In most of the state-organized regional districts, a school or district has the option of joining or dropping out of the regional organization. It is not mandatory that they cooperate. In fact, in some states it is so fluid that annually there is a change, which has obvious complications to the administration of the center involved.

These state-divided regional centers may exist primarily as a coordinating agency or they may actually have a basic physical center with various facilities.

An example of a regional program that emphasizes the coordinating function is that of Wisconsin. During the 1967-68 school year 85 per cent of the school districts of the state participated in regional programs (W35, 10). These are usually shared services which generally cover the service spectrum. The CESA office (regional) is reimbursed $29 000 annually for administrative expenses (W35, 22). Obviously a physical facility could not be operated on that amount, thus any other expenses must be shared regionally.

Services are provided as given in this quote from the handbook:

> Providing a service cooperatively consists in the arrangement of contracts between the agency office and the school district which is to receive and pay for the service. If there is sufficient demand within the agency to establish this type

> of program through contracts with other districts, and if the agency is able to contract for such a service to the extent needed, the agency is then in a position to supply and coordinate the service among the districts. Implementing the features of the cooperative arrangement is the responsibility of the agency's professional leader, the coordinator. Guiding this program within the local school district is the responsibility of the district administrator (W35, 9).

A flow chart indicating the organization of the Cooperative Educational Service Agency is found in Figure 1. Note that contracted services with schools are basic, though other agencies are utilized.

The other basic type of state-wide regional program is that in which the center actually provides the service, though shared or contracted services are not ruled out. Nebraska has this type of service (N19). As of this writing, Nebraska had a large proportion of its centers in operation. Less evidence was found on units in Iowa, though several that are in operation appear to be operating a very commendable program. As an example of organization that of Region X based in Cedar Rapids, Iowa is given. This center is located in the downtown area of this city of over 100 000. It serves the major portion of seven counties plus portions of several others in eastern Iowa. Cedar Rapids is the largest city of the region and is located in Linn County. A secondary or satellite center is planned for Iowa City to the south about 30 miles. It is the second largest city and is the locale for the University of Iowa. The desire is to utilize resources at the state university. As a matter of interest, the four-volume report The Multi-County Regional Educational Service Agency in Iowa, the most comprehensive noted by the author, was produced by the College of Education at the university (I4; I5; I6; I7). This is very obviously a cooperative venture from the very start.

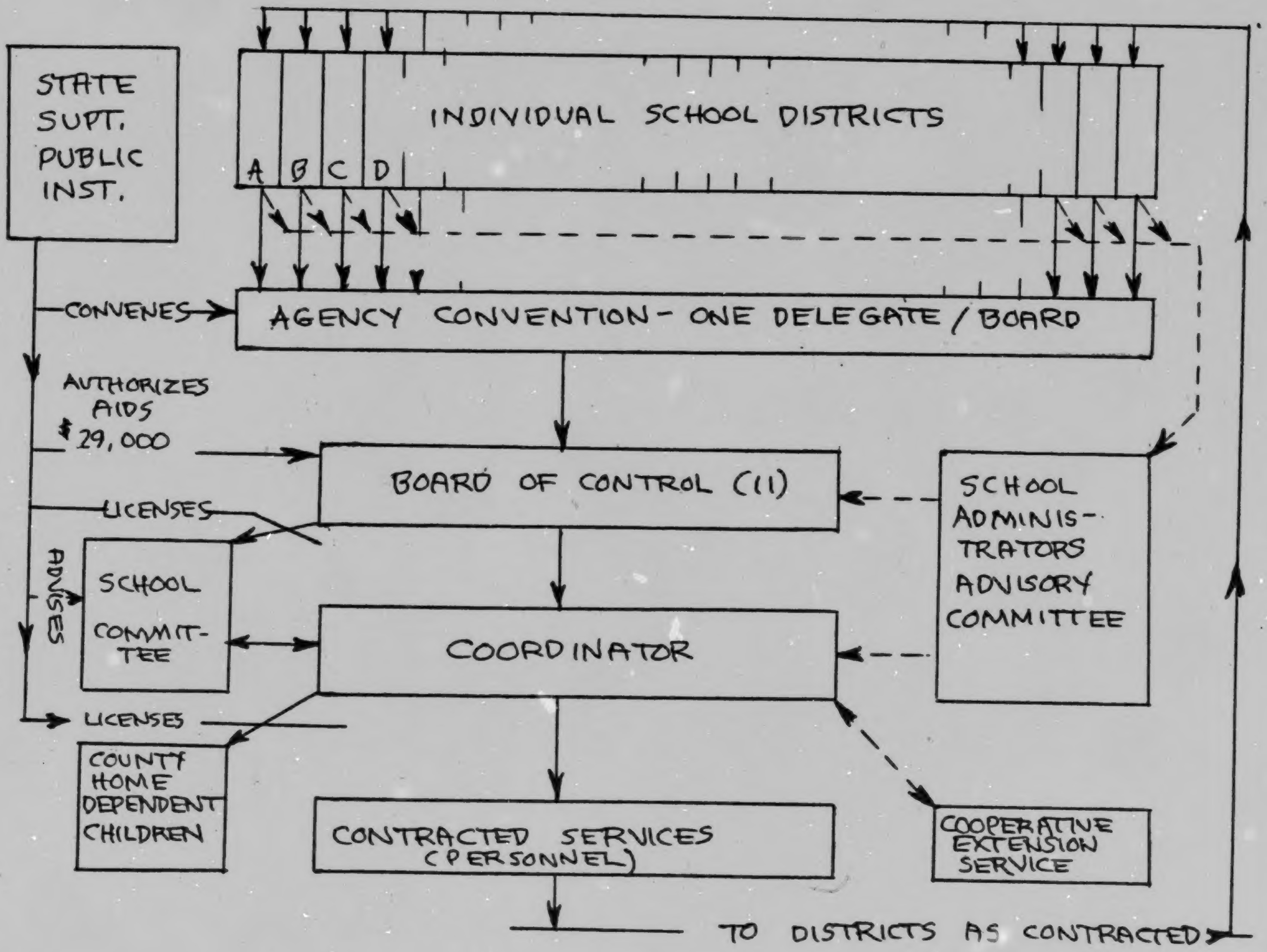
STATE SUPT. PUBLIC INST.
INDIVIDUAL SCHOOL DISTRICTS
A
B
C
D
CONVENES
AGENCY CONVENTION - ONE DELEGATE / BOARD
AUTHORIZES AIDS $ 29,000
BOARD OF CONTROL (11)
LICENSES
ADVISES
SCHOOL COMMITTEE
SCHOOL ADMINISTRATORS ADVISORY COMMITTEE
COORDINATOR
LICENSES
COUNTY HOME DEPENDENT CHILDREN
CONTRACTED SERVICES (PERSONNEL)
COOPERATIVE EXTENSION SERVICE
TO DISTRICTS AS CONTRACTED

FIG. 1. COOPERATIVE EDUCATIONAL SERVICE AGENCIES ORGANIZATION FOR WISCONSIN (W34, 26)

Figure 2 indicates that the center in Region X is quite sophisticated in both organization and in service fields. The service agency is currently in operation with consultants in the field. The service fields cover most of the services found in a large regional educational service center.

This latter type of agency obviously requires more initial outlay though in the final analysis the cost to the individual schools, all things considered, may be equal to or less than previously. A financial analysis would be required to arrive at significant findings; however, it is evident that a great difference is not involved inasmuch as both approaches are being used in midwestern states. The trend is toward the more complete service center as in Nebraska, Iowa or New York

The role of the state in the implementation of the intermediate service center concept is a major one in many states. In South Dakota, Nebraska, Missouri and Iowa it was a regional organization, the Great Plains School District Organization Project, that laid much of the ground work for the reorganization of school districts and the implementation of the regional service center projects via the component states. The relationship is so common in its roots that one can hardly be mentioned without the other being involved (S13).

2. The educational cooperative

This type of educational service center is basically the same institution as that just described. The services are typically the same, thus most of the discussion of this paper applies to the educational cooperative as well as the regional educational service center.

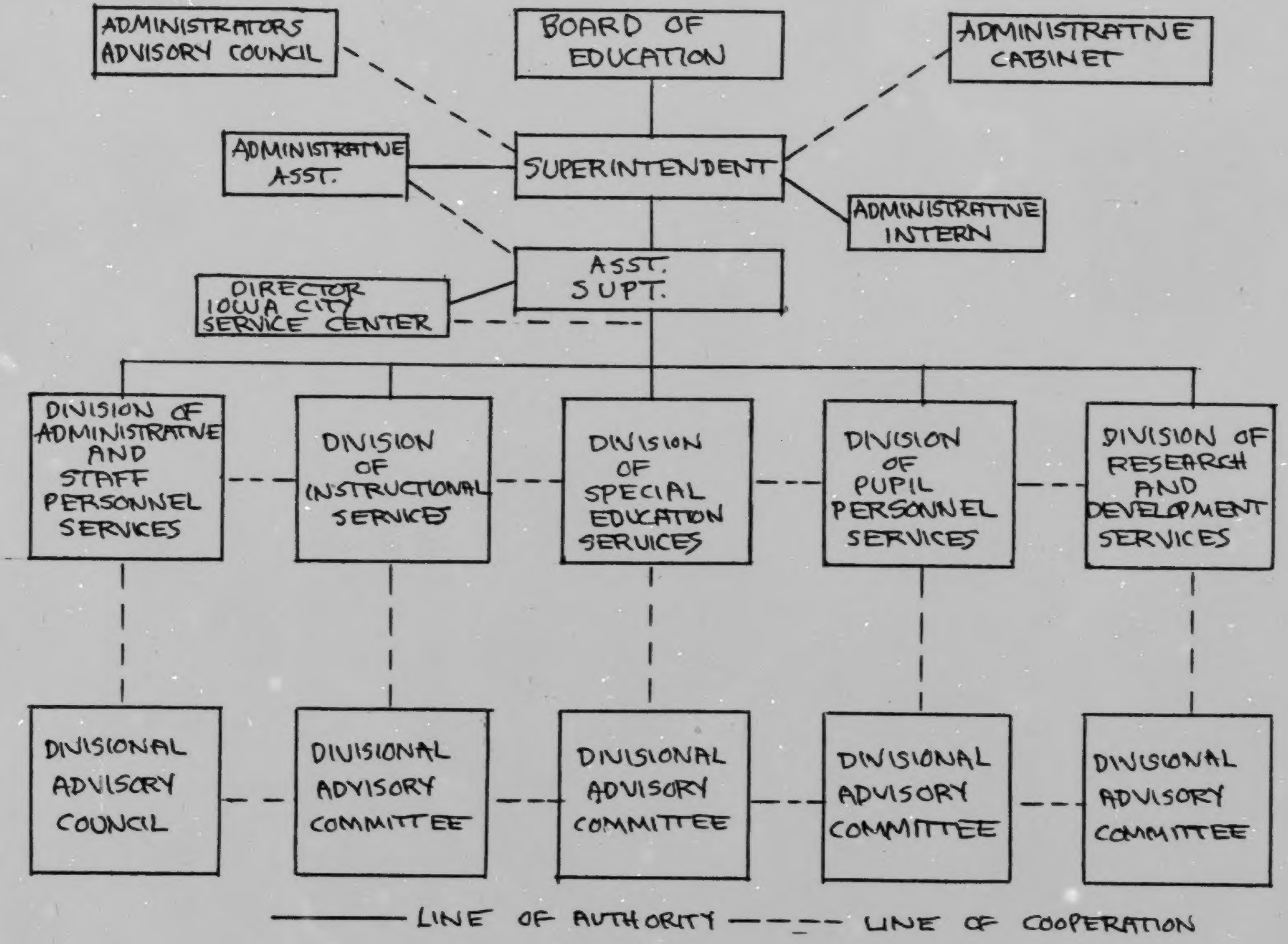
ADMINISTRATORS ADVISORY COUNCIL
BOARD OF EDUCATION
ADMINISTRATIVE CABINET
ADMINISTRATIVE ASST.
SUPERINTENDENT
ADMINISTRATIVE INTERN
ASST. SUPT.
DIRECTOR IOWA CITY SERVICE CENTER
DIVISION OF ADMINISTRATIVE AND STAFF PERSONNEL SERVICES
DIVISION OF INSTRUCTIONAL SERVICES
DIVISION OF SPECIAL EDUCATION SERVICES
DIVISION OF PUPIL PERSONNEL SERVICES
DIVISION OF RESEARCH AND DEVELOPMENT SERVICES
DIVISIONAL ADVISORY COUNCIL
DIVISIONAL ADVISORY COMMITTEE
DIVISIONAL ADVISORY COMMITTEE
DIVISIONAL ADVISORY COMMITTEE
DIVISIONAL ADVISORY COMMITTEE
LINE OF AUTHORITY
LINE OF COOPERATION

FIG. 2. PROPOSED ORGANIZATION CHART OF REGIONAL EDUCATIONAL SERVICE AGENCY NO. X, IOWA (I6, 519)

Most regional programs are cooperative in one way or another; however, when the term is used as a noun, the meaning tends to refer to a voluntary arrangement arising locally, rather than an organizational structure coming from the state. "The Educational Cooperative is not a consolidation of a few school districts, but a creation of them" (A40, 19). "Its organization is a confederation of local school districts which in concert with a state department of education and a local college or university voluntarily bind themselves together to increase their capacity through joint effort" (A40, iii).

Under this arrangement each unit maintains local autonomy, yet works cooperatively with other districts, the state and college.

> This would provide the joint action context within which the restrictive factors of a typical population dispersal, limited financial and human resources, and general pedagogical paralysis could be reduced, thereby increasing significantly the instructional efficiency and cost effectiveness of education.

Then the same report continues later

> The process proposed for operation within a cooperative program would remove the child from absolute and sole dependence upon a teacher in a classroom and provide access to programmed instruction, student activity, learning packets, teaching machines, mobile laboratories and libraries, instructional paraprofessionals, teaching parents, laser-link and cable television, video-tape recordings, and other appropriate instructional devices and techniques. The input to the child will be multiplied and improved in substance over what he is presently receiving (M58, 24-25).

This concept is being tested in the Appalachian areas of Virginia, Pennsylvania and other states of the East. The evolution of the cooperative idea tends to vary from section to section, but in essence the ideas are the same. The Cooperative, as such, does not have legal ties to the extent that some more structured regional programs do, such as New York.

The proponents of the cooperative feel this concept is actually more than the sharing of educational services, for sharing is a limited agreement. ECP, the Educational Cooperative Plan, goes beyond in that it is a "formal structure" used to affect the entire educational structure. It is felt that this gives "improved instruction, more accessibility to educational opportunities, and a far more effective system for the money" (R8).

> The Educational Cooperative is comprised of the several contiguous school districts which voluntarily engage in cooperative action while retaining their own autonomy. It is comprised also of the appropriate state department of education and of institutions of higher learning to which the cooperating school systems extend membership (A39, 24).

Throughout the literature several words are mentioned often, which give indication of certain basic elements in the cooperative idea: voluntary, cooperative, and autonomous. Too many have seen the negative effects of combines, trusts, consolidations or what-have-you, whether they be industrial, business, societal or educational. There is much effort being expended to gain the advantages of cooperation without accruing the disadvantages.

Both R.E.S.C. and cooperatives are attempting to find that gracious meeting ground where there can be efficiency, effectiveness and economy without being engulfed in a bureaucracy or an autocratic rulership. Checks and balances are built into the organizational pattern. There are administrative inter-connections as well as cooperative relationships among all elements of the organization, that is the professional personnel and all advisory personnel, whether professional or lay.

3. Cooperatives versus regional centers

As mentioned, the cooperative is basically a unit that has come directly from the source, a cooperative venture among those who see the needs immediately. It is very possible, if not probable, that a very positive cooperative attitude would be apparent for the personnel involved who see the need directly. In the case of the cooperatives in the Appalachian area, there has been some external influence, however. The Appalachia Regional Laboratory, sponsored in part by the federal government, has been fostering the organization of these educational cooperatives. This does not completely negate the concept of "grass roots" voluntary cooperative action, for the local populace and professionals working with them must be convinced of the value before they will "cooperate with the cooperative" idea and plan to help better the educational program in the mountains.

The organization is basically a local-region rather than a state-generated plan. Typically, that which starts with those who are going to use it, will fare better than that which is mandated externally.

The educational cooperative concept is structured, yes, but not highly structured. It is a mutual program, not one based on a hierarchy of office-upon-office, official-upon-official. It is for the good of the natural region in which these districts find themselves.

> Of special importance is the fact that the less highly structured organizations, the ones qualifying as Educational Cooperatives, experienced more cooperation, communication, friendliness, and participation in decision-making than the more highly structured, bureaucratic organizations. This finding was reinforced when professionalism of staff proved a significant variable in that highly trained personnel were more cooperative than were those with less training (A40, 28).

The implications of this finding are interesting. It would indicate the need to interest the professionals and to gain their cooperation prior to attempted work with the masses. Additionally, with this approach, if this study is correct, there is a need for selling people where they are, rather than imposing a "service" from an external authority.

When looking at the situation objectively, one wonders why it is that the educational cooperative approach is not more widespread. True, there are many voluntary cooperative plans, shared services programs etc. in many portions of the land; however, there are very few educational cooperatives per se. Most of those noted are in the Appalachian mountain country. On the other hand, the regional program as instituted from the state is found in many parts of the country, such as Oregon, New York, Wisconsin, Texas and Nebraska.

Most of these educational service centers, whether state-originated regions or locally sponsored educational cooperatives, are voluntary in membership with the option to join or cease affiliation at will. Evidently the vast majority of administrators and legislators see the folly in forcing "cooperation."

It would appear that, generally speaking, an external party is needed to act as an agent in promoting coordinating activities. No doubt it would be better if the local school district personnel would get together on their own and act, but the evidence indicates few do it. On the other side, the state has been reasonably successful in arranging regions and generally acting as a generator and coordinator.

4. Control of the regional centers

According to some, the intermediate agency, the regional center or whatever the term used or the variety of service center, should be an arm of the state. In a sense, the intermediate level would be a sub-division of the state department.

The preponderance of opinion appears to be on the side of local control over the intermediate level; this intermediate level being a service agency, for the most part, rather than an administrative arm of the state.

> . . . a responsibility of the intermediate unit should be that of keeping the functions close to the control of the local communities by assisting them in developing their own programs (S26, 21-22).

Another author puts it thus:

> The district should have tax base resources sufficient to ensure a top quality educational program, and an organizational structure that will ensure genuine responsiveness to concerns of pupils, parents, teachers, and patrons (A13, 10).

A Wisconsin document mentions the following as to the role of the regional center.

> However, the agency does provide a cooperative regional framework that offers a high potential of availability for the kinds of services many school programs desperately need today. As such, it can be a sort of regional educational resource development entity, a genuine help to local school boards working cooperatively. Properly used it can give increasing stature to Wisconsin's position that local school programs are most

> effective when local people are charged with the planning and decision-making essential to their essential operation (W35, iii).

Another source suggests that the regional agency should be under the direct control of a board elected from the area involved, though it is felt that certain regulatory functions for the state could be the responsibility of the center. A lay board would set policy, adopt budgets and "establish performance levels" (G43, 9).

In general most observers feel that the regional educational service center should be under local control inasmuch as its function is primarily, and in many cases entirely, covering member districts.

5. Representation

In virtually all cases the representation on the board of control, planning board, policy board etc. depends to a great degree upon the component membership. Again, in general, representatives are from each member district plus other interested parties of the center, such as a local institution of higher education, a state representative etc.

The Appalachian Cooperatives generally agree on the policy of having a representative of the state department and local college or university to "serve on cooperative policy boards, conduct joint planning, and provide specialized educational services, especially in staff development" (M58, 26). In addition there is representation from local school districts (T12, 3). These representatives from the local districts keep their local districts informed as well as seek local advice and recommendations for the cooperative board.

Area C Educational Development Center in Pennsylvania, representing the counties of Green, Fayette and Washington, has the following organization:

> Voting members of the policy board, which makes decisions concerning the center's activities, represent the participating agencies. The college has two members on the board--the president and the director of the Learning Research Center; the local school administrators have nine representatives--three from each county; the nonpublic schools and the state department each have one member; and the county school offices are represented by the three county superintendents. All district chief school administrators not on the policy board are ex officio members and are encouraged to attend all meetings (C62, 5).

One report makes the following suggestions:

1. It is recommended that each school superintendent of each district involved be a member of the board.
2. Not more than one institution of higher learning be represented on the board. If there are other such schools, each should have a consultant or a consultant role.
3. It is suggested that there be two members-at-large from the community.
4. At no time should the non-superintendents out-number the superintendents.
5. An advisory council is recommended to be made up of representatives from collegiate institutions, P.T.A.s, district school boards, professional educators and associations, laymen, various organizations with an interest in education, the mayor, a judge and any local representative of the state department of education (A40, 34-35).

The Wisconsin regional system has representation from each district involved. The Board of Control elects its own officers and the regional agency coordinator is a non-voting member and secretary of that board.

These boards vary from state to state but usually they are as any board--mainly policy-making and not administrative. In some areas they have tax levying powers and in others they don't. Many allow the boards to approve contracts and to determine costs for member districts on a pro rata basis (W35, 11).

Typically the executive director of the regional agency or center is voted in by the board.

6. Some key elements of a R.E.S.C.

Inasmuch as most of the literature is in regards to the more formal regional educational service center that is based on an intermediate district, the discussion will generally refer to these units, though in operational essence the educational cooperative and R.E.S.C. are similar enough to be considered as one.

One must continue to keep in mind that though the relatively full service R.E.S.C. is quite common with it's services in media plus various instructional, administrative and special areas, the units do vary from place to place. In addition there are specialized units in research, library services, curriculum improvement, telecommunications etc. This concept will need to be noted in making applications to the Seventh-day Adventist school system.

The State of Pennsylvania has set down the following ten points as basic criteria or axioms for the operations of a regional center. Though these points are but stated briefly here, they will be elaborated on later in the paper. They are noted here to lend continuity to the discussion.

1. The intermediate agency should be a local concern.
2. The unit should have a separate elected board.

3. This board should have power to appoint the director.
4. The intermediate unit should have the authority to employ the staff.
5. The board, director and staff should: (a) develop service programs, (b) coordinate educational efforts, (c) provide leadership.
6. The agency should have an adequate source of income.
7. The State equalization program should apply to the intermediate unit in regards to the "unit subsidy."
8. They should have an independent budget.
9. There should be a minimum program of services, which may include the following and may include other services with the permission of the component districts.
    - (a) curriculum development and improving services
    - (b) educational planning services
    - (c) instructional materials services
    - (d) pupil personnel services
    - (e) continuing educational professional services
    - (f) government agency liaison services
    - (g) management services
10. The intermediate agency is to be service oriented, not administrative in orientation (B10, 2).

As one studies the literature of the regional/cooperative field, a very definite pattern begins to unfold. Most authorities and agencies agree on the above criteria with one notable exception, some are strictly service centers while others have administrative power along with the service function. Then, of course, some of the centers are basically originated locally while others are generated on the state level but in both cases there is general agreement that the R.E.S.C. in it's various forms is to serve the region primarily. It is not an arm of the state office, but rather a service unit for the component districts.

7. Local versus regional service centers

For the most part, authorities are agreed that services should be as local as possible and practical, all factors considered. The discussion here will involve the media phases primarily, though the concepts would be similar in other phases also.

Ultimately, every school should have its own instructional media or resource center. Three levels are involved in this planning: the local school, the district and the regional center. The size of the geographical area, the topography of the land, enrollments as well as other factors will determine to a great degree what will be stationed here and what will be placed there. The financial level of the area will be a prime consideration also (K15, 8; B20, 2).

A study made by Vannan brought out many interesting comments that have application in many instances to this topic and the study as a whole. He asked selected state departments of education, in brief, "If you had the money--what would you buy?" Among the responses, Pennsylvania mentioned "Strong regional IMC Program funded by the state." Kentucky gave "The development of regional and local

IMCs with computer-assisted linkage to all education buildings." Charleston, West Virginia, gave, "We want the development of school building 'resource centers' in all buildings. "the above should be supplemented by 'county level centers' with more sophisticated materials and equipment." Another state mentioned, "Centers could be changed to area media centers, with production facilities; they could then serve schools of the counties with much broader services." Another gave, "Media centers at division levels with extensive collections of materials and personnel to provide leadership in evaluation, selecting, and using media" (V1, 14-15).

It is generally agreed that media will be used more when made available readily with the least amount of red-tape and effort. One angle is being used by an Iowa center, which is stated,

> Obviously no local school district in Southwest Iowa or anywhere else can launch itself on a $100 000 per year budget to acquire needed media and personnel for its students. There are methods, through group lease arrangements, whereby a large supply of materials can be provided to each building for a minimum cost. The LRC is looking at all such possibilities for the future extension of LRC services to improve instruction (H25, 2).

Without doubt, media should be available directly in the individual school whenever possible. However, Brown and Norberg have pointed out that it is important to divide the instructional resources "between those which should be centralized and those which should be contained in the single school." Generally, relatively expensive items such as film, television and radio production should be centralized.

> In addition, the development and coordination of instructional-materials centers or libraries for individual schools and selection, distribution, and textbook-maintenance services may

> also be administered at the district or county level. Finally, the collections of county and district centers may include relatively expensive and/or infrequently used items--mounted specimens of animals, models of human organs, plants, mockups of molecules, human skeletons, scientific instruments, such as barometers or vacuum pumps, etc. (B48, 288).

Another author states the determination of location in a very succinct way.

> Simply stated, materials and services are placed and made available at the level where they are used in accordance with cost, demand, access, and structure of additional programs of materials and services (A46, 12).

Ashby specifically suggests the following allocation of materials and services:

TABLE IV. ALLOCATION OF MATERIALS AND SERVICES

The building:	filmstrips transparencies slides study prints inexpensive kits tape recordings phonograph records realia 8mm film loops a media specialist to coordinate and assist teachers and administrators
The district:	program planning and development in-service planning and implementation centralized purchasing and cataloging housing and circulation of back-up and specialized items building facilities design some local production of unique materials general consultation
The region:	16mm films expensive models, kits etc. high quality production work cooperative selection and buying of audiovisual equipment reproduction of non-copyrighted material equipment repair building design, systems design stocking and sale of commonly used consumable media items (A46, 12).

It has also been suggested that the regional center is best qualified and set up for video-taping and audiotape duplicating, publication services and customized production services requiring a professional artist (S28).

Rosander brings out an interesting concept in the following:

> Low unit cost items, such as study prints, art prints, recordings, slides and filmstrips, are services that should be provided by smaller units. It is less expensive to 'station' than to circulate these items (R18, 261).

There is a balance to be maintained and this balance will no doubt vary from area to area according to local circumstances, such as enrollments, financial resources etc.

Even with cooperative programs, regional centers and the such, it is not usually possible for the center to have comprehensive collections in all fields.

> Rather the emphasis should be upon providing enough of the materials needed and examples of others, plus facilities for duplication or manufacture of those inexpensive materials having less than maximum utilization patterns (T16, 11).

The acquisitions process must, of necessity, consider these realities. Most media centers or libraries of size maintain full-time person(s) to evaluate and acquire, considering these factors.

From time to time, centers maintain some equipment that would normally be found in the individual school. Some do this in order that spares may be on hand should there be a breakdown or shortage in the area. Others maintain a sampling of equipment for use in demonstrations, for in-service education, teacher training programs and for selection assistance (T16, 10). Some centers also maintain exotic equipment that would not be normally available locally because of budget problems or insufficient utilization because of the nature of the equipment or size of the school or district (H25).

8. Implementation of the program

In this section, several viewpoints will be presented from about the nation, regarding timetables, steps in implementation and similar counsel.

In New Mexico it is proposed to put the program on a three-year timetable. The first year would start out small with an assistant director in the intermediate center and three assistant coordinators. The assistant director would be responsible to the state-wide project director. During this year they would locate strategic schools to be used as centers in each of the suggested quadrants of the state. During this year they would formulate clear objectives, finding of resources and programs, and generally get settled.

The second-year program would clarify further the first year's work as well as generally activate the program. Then the third year's work would be to bring things into further focus and coordinate all phases and aspects of the program. They will reassess their position and attempt to formulate a continuing program (B1, 111-120).

There are a number of decisions that must be made in the process of organizing and setting up an educational cooperative or regional center. The following are suggestions from the Appalachian Regional Laboratory that may or may not follow this order.

1. Determining Geographical Location and Participants. Consider the commitment of the district, estimated optimum size and financial resources.
2. Reaching Charter Agreements. This is in regard to operational agreements, as a "frame of reference in the planning stages" (A10, 51).
3. Agreeing on Organization and Staff. Consider size of staff, reimbursements, and training needs.
4. Assessing Educational Needs. There must be a recognition of the situation, needs, and an awareness of shortcomings in the status quo of local education. There may need to be data collection and a general awakening from lethargy.
5. Determining Educational Services. Help local people to realize that much can be resolved by using local means. Much public relations will need to be used as well as a study of the curriculum.
6. Developing Cooperative Procedures. Realization must be present of what has been done before in this field. Operating procedures must be gradually promoted. There must be a willingness to make progress.
7. Experimental Staging. Allow for a time of adjustment and tryout. It must be an emerging cooperative. It will probably be necessary to move ahead a step-at-a-time, rather than a full operation from the outset.

8. Continued Development. The program will develop and expand. Initial programs will move ahead after initial high priority programs have been put into operation.
9. Institutionalization. This is when the Cooperative Board is on its own, making its own decisions, developing its own programs. As a matter of interest, the Appalachian Educational Laboratory considers that this stage will be reached after three to five years of assistance from the Laboratory (A40, 50-55).

Hensley, in his doctoral study, gives the following suggestions for the cooperative regional program in Illinois:

1. Obtain the support of the local public school superintendent for the proposed program.
2. Create in the local school superintendents a high degree of awareness of the on-going and proposed activities of the project.
3. Make a sustained effort over an extended period of time to convince the superintendent of the practicality of the proposed changes.
4. Seek the assistance of the county superintendent and other key figures in the educational hierarchy who influence the direction of change within a multi-county area.
5. Establish an excellent rapport between the district and the center.
6. Determine the general needs of the region and plan a center to meet those needs.
7. Pay particular attention to the determination of the superintendent's views of critical needs in his home district.
8. Establish direct lines of communication to all members of the client system.

9. Operate within the framework of established communication patterns, but if key individuals are only passive facilitators or openly resistant, they should be bypassed and direct linkage established between the center and the target groups (H17, 140-141).

The author makes it clear that research is needed to identify other factors.

It is quite apparent from the counsel given by many in the field that much preparation is involved. Considerable emphasis must be given to the human factors each step of the way. Public relations is a must. Obviously the entire concept is involving cooperation, thus communications must be clear with all channels on all levels, and at all times from the inception of the concept to the final institutionalization. Of course the continued success of the venture requires continued support which means an enlightened clientele as well as all professionals involved in the entire program.

Several mentioned a time table range of three to five years to achieve reasonable implementation and self-sufficiency. Other studies have brought out similar time lapses, however, the time involved will no doubt vary according to local conditions, such as apathy or a climate of cooperation and progress, a financially impoverished area or one that has ample fiscal support and of course the regional educational philosophy, ranging from ultra conservative to one that is open to educational innovation.

9. Alternates to the educational service center

As with most situations in life, there are alternative avenues of action. Seldom does one solution contain all the positive factors.

Though this paper is on the regional educational service center; it is recognized that there are other avenues, which will be mentioned even though it will not be possible to go into details.

An Iowa study, which is one of the most comprehensive observed in the field of intermediate service centers, suggests four alternatives to the service center:

1. encouraging the formation of larger school districts,
2. encouraging cooperative agreements among school districts,
3. decentralizing the state office and creating regional offices,
4. having services provided by post high school institutions.

This same study suggests how each of these plans has serious drawbacks. In a primarily rural state such as Iowa, which is typical of most states, it would be difficult to obtain districts of 5 000 to 10 000 students and even then there would be services that could not be provided.

On the second alternate, there would be the annual renewals, changes in personnel etc. that would make it difficult to manage a long-range program.

Regarding the third approach, it is felt that the administrative and ministerial functions would dominate as well as make less effectual the state program as a whole.

As to the fourth, it would appear that it would weaken their program in post high schools and in higher education. In addition their interests and skills would not generally be in elementary and secondary education (I5, 362-364).

10. Evaluations of regional centers

In many ways it is difficult to evaluate the success of a venture of this nature. In many cases it is through interviewing, observation, statistical reports and the like that an evaluation can be made.

The center operating in the Salisbury, Maryland area gives statistical evidence such as: 850 received speech therapy, over 10 000 were screened, etc. Their report of the first three years also includes such phrases as "effective liaison relationships with community organizations," "interaction . . . exceeded all expectations." In the instructional phases observable changes were noted by principals and supervisors. There has been more utilization and application of new techniques and ideas (E14, 44-48).

Another approach used is that of the questionnaire. The Portland (Maine) Regional Instructional Media Experiment tabulated the following, in regard to its overall effectiveness. Out of 1 250 forms sent out

385 rated it as absolutely essential
641 rated it as most helpful
54 said it was helpful but not essential
1 said it was absolutely non-essential
169 did not respond (G41, 77).

The following recommendations have been rendered by the Portland Center:

1. The establishment of a continuing assessment of the true role of the regional concept with the resulting assignment of priorities.

2. The re-assertion of the basic premise of regional management and governance of the Resource Center.
3. Re-examine the project objectives for greater assurance that they will be realistic, relevant and measurable (G41, 101).

A doctoral study made by Hoban brings out some interesting items. He sets up the situation with a problem, namely, the Structuring of a Model Agency for New Jersey. The sub-problems are:

1. Description of each of the eight districts
2. Determination of which services could be offered
3. Determination of those services desired and those which would be practical
4. The structure of the agency

For each items, such as data processing or some other service, he gives the following six features to consider:

1. Purpose
2. Scope
3. Special personnel
4. Special equipment
5. Operation
6. Value to school or district (H21).

The evaluation of a service center would entail a similar listing of criteria for which it was originally set-up. How well has it fulfilled the original criteria? Has it satisfied the patrons? In order for a regional center to be successful, there must be a broad base of information on attitudes and practices within the member districts. This is necessary in order to relate the regional program to member schools and their needs and desires (W24, 64).

A Wisconsin study showed three areas that might need improvement in the regional center programs:

1. better funding
2. more adequate original planning
3. better communication between all parties involved in the regional venture (B36, 183).

Though it is not possible at this juncture to develop all the mechanics of evaluation for a regional program, yet it can be said that virtually all materials inspected in which comment was made on evaluation, agreed upon the need for an ongoing analysis of what was being accomplished.

11. Summary and comment

Educational service centers are usually one of two general types, either rather structured through state organization or basically cooperative and initiated by the local schools and school districts. A large proportion of the state initiated units are voluntary in nature. Within the more structured, regional type, a large share of the units have the option of belonging or not; though in some there is a direct or indirect penalty for not cooperating in the program. In some states the organization is relatively tight.

The modern trend is for the intermediate unit to shift from administrative functions to a service function. The evidence seems to favor those programs that have the least amount of bureaucratic involvement. A cooperative spirit rather than a coerced feeling of being forced into something of questionable value to the recipient appears to bring better results.

The control of the service center is usually democratic in nature. Representation is usually present. In some units, the local districts only contract for those services they wish. As a whole it can be said the regional educational service center as it appears across the nation is definitely a service organization and as such gives evidence of it by its activity, its organization and its aims.

In some areas the intermediate agency can tax and in others financing is from fees, contracts, subsidies and grants from the state or federal government. In some situations private and commercial sources assist in the program.

It is generally conceded that services should be as close to the user as possible, thus some services are primarily local in nature while in other cases where it is not feasible, they must be offered by the district center, the intermediate center or even the state office. Actually this eschelon could proceed to multi-state regions and to the federal government--even UNESCO. At just what level the service will exist will be dependent upon local and regional conditions and needs.

The evidence so far indicates that the regional educational service center concept is a solid contribution to education. This is evidenced in most of the literature--in studies and empirical evidence. As of early 1972 nine states had some type of formal regional agency. Another 29 states were in some stage of research to structure and implement the program. This would indicate an institution that has found a niche for this generation.

CHAPTER 6

SERVICES OF REGIONAL CENTERS

1. Range of services

The programs being offered in regional educational service centers vary considerably. Usually they are developed as an attempted answer to a need that is apparent in the area. As might be expected, these needs will not always be the same in each area. Usually an analysis is made of what is currently available in the local schools, local school districts, local institutions of higher learning, intermediate school district offices, the state department of education and other state offices, as well as other sources. Obviously this type of planning is a must in each area (C44, 127).

This chapter will survey typical types of services that are available in various parts of the United States. Probably no single educational service center offers all the services listed, but on the other hand, there is a certain common denominator that is observed in a very large proportion of the centers. One of the most common types of services offered is that of media distribution, production and acquisition. Though in some instances the media function is the only service offered, probably the total concept of multi-services is most common.

The listings of various services under various categories are gleaned primarily from the sources listed in the footnotes.[1]

2. Administrative services

This category of services is primarily of interest to the management phases of education. Though many of the services listed might be administered by a local school or district or maybe a county office, yet in many cases the service might be better offered by a regional office. The services thus offered frequently are of a better quality and available at a lower outlay.

1. Pool purchasing of supplies, media, building materials, maintenance supplies and similar items
2. Inter-district contracts for services or purchasing
3. Cooperative purchasing leading to transportation savings
4. Mutual sharing of equipment, such as exotic scientific laboratory equipment, certain types of athletic equipment, certain office machines, etc.
5. Centralized data processing of financial items such as payroll, accounting, etc., pupil personnel records, inventory, procurement, research, etc.
6. Administrative and management consultant services

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[1] Iowa (I5, 403-406; S58, 10-11), California (R11, 165-169; C8, 7; O12, 66), Nebraska (S13, 29; G2, 1-2), Wisconsin (B18, 57), New Jersey (H21, 85), Georgia (S26, 71-72; B29, 2), Texas (T17, 1, 2, 17-18), Maine (G41, 13-14), Appalachia area (A40, 14), Maryland (E14, 2-3), Virginia (D13, 32), Louisiana (L26), New Mexico (B1).

7. School building site consultant services, engineering studies, real estate appraisals, etc.
8. School planning assistance via architects, educational building consultants and other specialists
9. Educational surveys, demographic studies or other cooperative programs of this nature
10. Public relations programs, cooperative publishing, news dissemination and mass media programs
11. Cooperative microfilming of pupil personnel records, financial records or print media collections
12. Substitute teacher exchange as well as regular mutual sharing of personnel in unique fields
13. Coordinate activities among various governmental and private agencies, such as public health, welfare, social groups, police, etc.
14. Cooperative use of mobile facilities and transportation
15. Cooperative school evaluation programs, such as educational assessment, teacher accountability, etc.
16. Various state or federal agencies, such as NDEA, school lunch programs, and school milk programs are coordinated
17. Cost studies, time and motion studies
18. Cooperative text purchasing, disbursement, repair as well as depository and exchange
19. Regional payroll service for faculty and staff
20. Research programs, statistical studies, surveys

21. Coordinate food services, food purchasing, possible centralized kitchen facilities, catering, emergency food facilities, manpower pool
22. Centralized accounting, auditing, financial counseling, etc.
23. Legal services for school law, business law, etc.
24. Vehicle maintenance on a cooperative basis--major overhauls down to day-to-day maintenance, driver pool, cooperative purchasing of busses and maintenance trucks

Though this listing is not exhaustive, it does give an indication of services that are offered. Convenience of the service, costs, quality and comprehensiveness of service must be considered before a service is assigned to its rightful placement in the educational hierarchy.

3. Curricular services

This phase of the service program is aimed primarily at the pupil and teacher and factors involved in bringing about a learning climate most conducive to the betterment of education as a whole.

1. Providing of consultants in various fields, such as music, art, physical education or media; or providing consultants in the basic subject fields such as language arts, mathematics, science and social studies
2. Speeding up the application of innovative theory to actual practice in the classroom
3. Assistance in assessment of educational needs and analysis of results of such assessment

4. Assistance in preparation of proposals for grants
5. Diagnostic services for children with problems in learning, attention span, motivation and retention
6. Dissemination of information on educational needs, new instructional and curricular practices, research on learning and promising teaching techniques
7. Providing shared personnel for remedial reading, art teachers or other specialized teaching fields
8. Providing pre-school assistance, such as day care centers, nursery schools, kindergarten either by cooperative operation, coordination of activities, consultant service or assistance in certain phases of the program
9. Assistance in providing programs for the gifted, enriched programs and similar programs via shared personnel, shared equipment, shared facilities, bussing cooperatives, etc.
10. Providing one or more curriculum coordinators for the area
11. Sharing in vocational-technical education programs via the operation of a centralized facility or possibly in coordinating programs in the region
12. Providing supervisor assistance in the instructional system, either in a school situation or in an administrative capacity
13. Assistance in special areas of education, such as minority education, compensatory education, outdoor education, health education, ecological education or drug education

14. Cooperation in the operation of programs as listed above as well as adult education, continuation school and community education

The degree of cooperation in these programs varies from very loose cooperating in an exchange of ideas through to a very structured unit working as one system.

4. Media services

The increase in the use of media, both print and non-print, no doubt has had much to do with the increased number of cooperative programs about the nation. The media-services aspect of the regional educational service center are at the heart of most such organizations. The following list is typical of a cross-section of the service centers:

1. Instructional and educational television programming, production and broadcasting; videotaping, closed-circuit television, cable telecasting and other phases of the art and science of television
2. Inter-school tie-ins via telephone lines, electrowriters and other educational uses of telephone lines
3. Mutual sharing of exotic equipment, such as certain science equipment, industrial and audiovisual equipment that is not in constant use yet is necessary to a well-rounded instructional program
4. Duplicating services for videotapes, audiotapes, cassette duplicating, multiple copies of transparencies, etc.

5. Graphic services such as printing, mimeographing, enlargements, art work, sign production and silk screening
6. Equipment selection, audiovisual software and book selection assistance
7. Cooperative ordering, accessioning, cataloging and similar technical processes
8. Production and maintenance of a union catalog as well as dissemination of information on new accessions, etc.
9. Audiovisual equipment maintenance from minor repairs to major overhauls
10. Dissemination of information on media sources, teaching aids, free and inexpensive materials, etc.
11. Audiovisual production facilities for diazos, electronic stencils, photocopying and a host of other items being produced by specialists or do-it-yourself by teachers
12. Film and filmstrip production ranging from simple operations with filmstrips or super 8 mm film to 16 mm film production
13. Storing and disbursing various realia, models, mockups and demonstration units
14. Delivery of various media via truck, parcel post or express or even cooperative private transportation
15. Providing professional library services, including book collections, curriculum guides, periodicals and pamphlets
16. Test scoring equipment--mechanical, electrical or electronic
17. Preview facilities for film, recordings, videotapes, etc.

18. Consultant assistance in the media field--production, design, utilization and similar phases
19. Publishing of curriculum guides and brochures
20. Provision of a film library for 16 mm or similar types of media, including acquisition, distribution and maintenance
21. Provision of supplementary book collections
22. Providing of specialized facilities, such as a planetarium, zoo or museum
23. Information retrieval systems [illegible] one type or another
24. Translating service as well as certain language laboratory equipment
25. Computer-assisted instruction planning, utilization and possible provision
26. Coordination with other agencies in the media field, such as the state library, booking services, etc.

Though much of the field of media encompasses relatively inexpensive equipment and software which can be procured by the local school and district, yet much of the newer types of media involve items of considerable financial outlay with accompanying expensive software. Many of the production functions are such as to be excessive for a small school system. It is here that many schools have seen the wisdom of cooperating in their programs in order to obtain more for their dollar.

5. Special education

Substitutions and alternatives can be utilized in administration and instruction and still maintain a fair program, but when it comes to the field of special education there is not much that can be restructured. It just requires certain personnel and facilities. This cost is considerable inasmuch as the teacher-pupil ratio cannot be very high. In addition, this field requires specialists which in the past have not been numerous. A fairly large pupil base is almost a necessity in order to initiate and maintain a special education program and frequently this means combining resources in order to arrive at a reasonable base population. The following are services that have been rendered:

1. Providing of consultants and/or teachers for the retarded, physically impaired, those with speech and hearing defects, the emotionally disturbed and similar problem areas
2. Providing of services to the gifted child, such as special facilities, specialized instructors, adequate research materials and laboratories
3. Guidance and counseling services for the exceptional child
4. Psychological and diagnostic testing services
5. Attendance and social work
6. Work-study programs for various special education situations
7. Coordination with other agencies, both private and public
8. Providing of facilities and specialized equipment for the instruction of the exceptional youngsters

The costs of special education are very high no matter where they are located, but the costs would be impossible in a small school district where there is not adequate support. It is thus that those in this situation find ways of cooperating in the dilemma, for closing one's eyes will not make the problem disappear. It is thus that many districts are finding the regional approach to be part of the answer.

6. Pupil personnel services

Even though many pupil personnel services are available in many, if not most, schools, yet there are small schools that are isolated and have little or nothing other than the kindness of a teacher. Without doubt there are situations where a local teacher does not have the time or the talents to cope with some situations that might arise, therefore avenues have been developed to assist these schools in many sections of the country, one of which is, namely, the educational service center serving a region. Services often include the following:

1. Vocational, academic and personality counseling, guidance, group therapy and role playing procedures
2. Health and dental services, such as eye and ear screening, physical examinations, dental clinics, first-aid training, and school-nurse programs
3. Recreational programs, summer recreational outlets, interscholastic athletic events and various regional pupil programs such as music, debate teams and oratorical events

4. Follow-up studies on graduates
5. Regional vocational guidance information program
6. Placement office for graduates and drop-outs
7. Coordination with area, state and federal agencies

Ideally as many as possible of these services should be local. This is true of any of the services under discussion, under normal circumstances. Feasibility is a factor in many cases. In others it is a matter of practicality as to whether to do it locally or regionally.

7. Staff personnel services

In many isolated areas the staff personnel services available range from nil to virtually non-existent. Regional cooperation has made it possible for many communities to offer these services to its faculty and staff. Among the services being offered are:

1. In-service programs at the regional education service center, local schools in the area, or at local colleges and universities
2. In-service programs for non-certified personnel such as bus drivers, custodians and cafeteria workers
3. In-service programs for board members, trustees and administrators
4. Consultant services in areas such as certification, professional education and working conditions
5. Assistance from volunteers, teacher aids and other paraprofessionals

6. Secretarial pool, professional assistance in education and allied fields

Other things being equal, the faculty and staff can do a better job when they have services available to them. As it is, all too many teachers are spending an excessive amount of time on jobs that could be done by lower paid personnel. In other cases they could be better educators with professional assistance in special situations.

8. The Regional Educational Service Center

The regional educational service center is known by many terms about the country. Examples are:

Michigan	Intermediate School District
Nebraska	Educational Service Unit
Oregon	Intermediate Educational District
New York	Board of Cooperative Educational Services
Wisconsin	Cooperative Educational Service Agency

(S47, 1).

As the functions of each are studied, it is observed that they are all basically the same organization, though the groups above mentioned tend to be more state structured than the Cooperative, such as being promoted in Appalachia. The later is a federation of school districts. "It is not a super structure imposed upon existing school systems. . ." (A39, 1).

In the following few pages some brief exhibits are presented. These represent various portions of the country as well as varied approaches being utilized. Various facets of these centers are presented later in this paper, though at this juncture it is desired that the reader have an introduction to the programs.

A. South Dakota

The Southeast Educational Service Center serves 21 counties of South Dakota, which comprise about 43 per cent of this predominantely agricultural state. It is 2.3 times more densely populated than the rest of the state. Emphasis in this center has been on special education services, in-service training of teachers, media services and a mini-course approach to microteaching. The center is operated by six professionals and two clerks.

A unique procedure has been the recruitment of tutors to work with pupils on a one-to-one basis. The special education program has been cooperative with other agencies and has involved an outdoor education program.

The center has been funded federally and has operated for the 21 counties, though as these funds cease, the center will be operated by the Sioux Falls public schools and four other communities. One cannot but wonder who really needs these services more, those in the Sioux Falls area or the remainder of the 21 county region? This type of phenomenon has been observed in other areas also and is worthy of consideration (S40).

B. Pennsylvania

In the southwestern portion of the state three counties maintain a voluntary cooperative in conjunction with California State College, along with several other agencies. The 25 districts run their own programs but cooperate with certain services. The Appalachia Educational Laboratory has assisted in establishing the unit. "Interlocking is perhaps the best word to describe the cooperative effort. . ." (K15, 7).

This cooperative was in operation prior to federal funds. Federal funds are used to supplement but do not comprise the basic budget needs. Each of the districts shares in the finances of the center (C62, 4-7).

In 1949 a law was passed in the state allowing joint programs. Even in 1963 there were 15 regional instructional materials centers and similar establishments in the state with others coming (B12, 11).

C. Georgia

Though the Bibb County Instructional Materials Center covers but one county, their program is unique in that emphasis has been on improving instruction in "Target Area" schools, those in which the achievement level of students is low. Their services include in-service education facilities as well as the typical audiovisual services (B28).

A major study was made of the Ninth Congressional District in northeastern Georgia. The area has over 6 400 square miles with a population of 330 000. There are 156 elementary schools, 38 high schools and 16 combinations. To emphasize the problem, it is noted that the national average expenditure for education is $553 per pupil but Georgia is $350 per pupil. Some areas of the district were as low as $126 per capita and as high as $450 (S27, 47-56). In the 22 counties of this district there were 93 000 pupils. Only one county had the 10 000 enrollment which is considered as minimum by several authorities (G27, 2). The typical office had three professionals: a superintendent, a curriculum director and a visiting teacher or social worker (S26, 70).

It is quite apparent that reorganization is needed. Under the circumstances the investigator felt a need for a regional effort.

D. New York

New York's cooperative program is called BOCES (Board of Cooperative Educational Services). There were, as of 1968, 59 of these units within the state. They provide services beyond the budget of individual school districts (G20, 45). "While economy of operation originally inspired the creation of these organizations, they have since proved to have merit far beyond their cost-saving contributions" (C20, 46).

The services are requested by the local districts. They then are assessed their portion of the costs. The district is given aid from the state funds based upon real property worth. In effect the district is encouraged to obtain special services via the BOCES. The organization is flexible, giving those services requested. The unit does not have taxing power (S44, 7).

E. Virginia

The Dilwenowisco Educational Cooperative is an example of regional action in the western portion of the state. It is made up of four country school districts and one city district. Each district has two representatives on the board, a state representative, one from the University of Virginia, S.W. Regional Office plus a coordinator from the Appalachia Educational Laboratory, itself a regional educational laboratory sponsored by the United States Government (D12, 1).

Emphasis is upon a peer relationship among the districts. It is an "autonomous confederation" with each maintaining local control (D12, 4). Their cooperation is purely voluntary. The state department gives them assistance of a consultative nature through the Division of Special Services (V3, 5).

F. Nebraska

The state is divided into 19 service units. Membership is up to the electorate. As might be expected there is not 100 per cent cooperation or utilization. It is thus that from year to year districts are joining and leaving.

Even among the service units there is cooperation. For instance units 12 and 13 share an administrator. The Panhandle Research and Development Council is comprised of units 17, 18, and 19. This is typical of cooperation among many regions (S13, 30).

Typical of the problems of Nebraska is that of unit four, in the southeastern portion of the state. The largest city has less than 8 000 population. Public and parochial schools are served by the center with less than 11 000 pupils in toto. There are 100 one-room schools in the region (E15. 18). Yet within this unit, they had 50 in-service workshops during 1970. Seven speech therapists are employed in the unit (E15, 1).

PERC, the Panhandle Educational Resources Center, serves the eleven northwestern counties. Three units cooperate in its operation. 14 000 square miles are served which includes 1 900 teachers, 30 100 pupils and 225 agencies.

Daily delivery is made to 97.1 per cent of the students, 77.8 per cent of the districts and 95.3 per cent of the teachers in the area. 26 000 items were used during the 1968-69 school year, half of which were 16mm films. Emphasis is upon media for special education.

As with many such units, a college is involved. Chadron State College is the location of the center (N18).

G. Kentucky

The average expenditure for education in Kentucky is $427 per pupil, annually, which is considerably below the national average. Ten counties in eastern Kentucky are spending an average of $351. With 70 per cent of the population living on meager incomes, a median education of 7.8 years and a close to 50 per cent draft rejection rate, they have problems (K8, 18).

By cooperating one area has been able to offer driver education and vocational guidance at relatively low costs. Working together has been called a "weapon" by which they are able to use technologically advanced techniques and equipment, which none could afford independently (D10, 19-20).

H. California

The Northern California Small High Schools Project has been geared to helping 32 small high schools of this rather sparsely populated portion of California. Each of these schools has fewer than 400 pupils, ranging from 48 to 392. 7 000 pupils are involved (N41, 2, 4).

The objectives are:

> 1. To strengthen course content and to increase the educational opportunities which are available to each student. . . .
> 11. To establish an occupational information resources service. . . (G46, 1).

Among the activities are an administrator's workshop, counselor's workshop and teacher's workshop emphasizing the production of LAPS (Learning Activity Packages) and UNIPACS (Single Concept Learning Packages), pilot programs in tele-lecture and career resources services. Services of other sorts are rendered also, such as consultation, meetings, follow-up services etc. (G46, 14-15).

Out of the 58 counties of the state, 50 operate audiovisual centers. These centers are funded by the state at $3.70 ($3.70) per A.D.A. During a recent year they served three and a half million pupils in 1 113 districts. Only 24 districts were not served. Sixty junior colleges also were served. Several counties contracted with nearby counties for services (C7, 1).

Twenty-one supplementary education centers have been established from Humbolt County in the north to San Diego County in the south. These units have been designated PACE centers with emphasis being on the improving of instruction.

> Despite the many constraints under which they have functioned--'being born,' funding uncertainties, legal uncertainties, operational problems, changing priorities, and numerous reporting requirements--the Supplementary Education Centers have emerged in less than four years as a strong positive force for the improvement of education. Given the opportunity and adequate funding, the PACE Centers should really move in the future (C5, 6).

I. Ohio

Plans are set up to put in 40 educational resource centers in the 88 counties. These centers, if approved by the legislature, would provide the typical services outlined under services, such as curriculum, pupil personnel, coordination and advisory, media, research and transportation (E12, 2).

J. Washington

In 1969 the Washington State Legislature eliminated the Office of County Superintendent of Schools and instituted fourteen intermediate school districts. The purpose of these new districts has not been clarified. Some feel that these districts should be satellites of the state office, others feel they should be stronger administrative units than prior districts (B52, 13).

K. Colorado

Under consideration is a Board of Cooperative Services to be called the Northern Colorado Experimental and Developmental Center. The unit would include two representatives from each of the districts involved and the superintendents of each on an advisory board (B7, 18).

L. Massachusetts

The Educational Collaborative of Greater Boston (EDCO) is now in existence in this large eastern metropolitan area. The organization includes the city of Boston as well as many suburban communities making up a coalition "to attack common problems and to improve the quality of education through metropolitan collaboration." The Roman Catholic Diocese is also included in the group (B40, 38).

M. New Mexico

This state is recommending two types of units: the regional unit--possibly four in the state; and a metropolitan unit for areas of over 25 000 pupils. The services would be typical of the concept mentioned in this paper. "Efficiency and economy" are the watchwords. These units would have certain regulatory functions as well as service directions (B1).

It is recommended by a state document that the regional unit be not fewer than 15 000 students and there not be fewer than two units in the state (B1, 21-22).

N. Wisconsin

In 1964 19 Cooperative Educational Service Agencies (CESA) were established in Wisconsin. The services offered are typical of others. 85 per cent of the state's 490 districts participate in the voluntary program. The rationale of the agencies is that these services and functions can be "provided more adequately and efficiently to a large number of people than to a small number" (W8, 8). The CESA negotiates and coordinates but does not actually provide services as in Nebraska or New York (W35).

As the literature of the field is read and analyzed, the following Handbook statement is cited as characteristic of the situation that is before education:

> The reaction to increased costs, to the scarcity of qualified personnel or to frustrated attempts to expand school programs can send school boards to the cooperative market in sheer necessity (W35, 8).

The minimum region size is about 25 000 pupils. The actual range is from 19 000 to 215 000. The territories are to be contiguous, as compact as possible and not to divide districts. All schools are to be within a 60 mile radius of the center (W35, 8).

O. Maryland

An Educational Service Center is located on the eastern shore of Maryland which serves Dorchester, Wicomico and Somerset Counties. The area is about 1 700 square miles with a population of 100 000. It is rural with one city of 37 000 with the remainder of the communities rather small. They have five main units in their center comprised of the following: Reading, Speech, Instructional, Psychological and Special Education. It serves 72 schools at a cost of $11 per pupil out of a total educational cost of $632 per pupil for the area. The evaluations by users have been mostly favorable. Federal funds have been used, though as of the end of this funding, the local units are assuming costs of a reduced program, in some areas, but full services in others (E14).

An example of a one county center is that of Montgomery County, adjacent to Washington D.C. The staff of 45 serve the 141 schools. The center includes a text depository, curriculum laboratory, instructional materials center, review and evaluation section, processing and library services (B48, 296-297).

P. Michigan

There are approximately 25 instructional media centers within the state of a regional nature, though not all counties are associated with such a unit. Some centers comprise but one county whilst others have many counties (K4).

The Berrien Intermediate District Office houses an instructional media center. This center serves the media needs of both Berrien and Cass Counties. The Intermediate Office serves over 50 000 pupils, directly or indirectly.

Q. Texas

The state is divided into 20 regions. Membership within the region is permissive and schools may participate fully in planning when represented on the Joint Committee even if they do not join in the services. The regions range from two counties to 26 counties in the northern cattle country (T17, iv-vi).

A unique feature of the system is the provision for a satellite center. These may be established in metropolitan cities with a minimum average daily enrollment of 50 000. In addition, areas of sparse population located a minimum of 150 highway miles from the center, as well as fulfilling other factors, may have satellite centers (T17, 7).

R. A Sampling

This listing is not exhaustive nor progressive, but rather a sampling of various programs in widely scattered portions of this country. The concept of some sort of an educational service center, the idea of cooperating on a regional basis for the betterment of the schools, is not unique. Economy and efficiency are words that are found countless times in the literature.

In the last few pages various programs have been described according to their location within the nation, with most of the programs being of the more comprehensive type of service center. In the next few pages the more specialized type of service institution is described in brief in order that the reader might have a background for further discussion later in the paper. Many of this type of institution are of a supportive nature.

9. Regional educational laboratories

The United States Office of Education sponsors 20 regional educational laboratories. Their main thrust is "to speed the pace of intelligent applications and wide-spread utilization of the results of educational research and development" (R4, 1).

It was felt that no single institution could properly reflect the varied aspects of research and development, thus a new type of institution was required to help tie the theory with classroom practice. They wish to increase the quality of education on a national scale.

> The laboratory would bring together individuals from State departments of education, public and private schools, colleges and universities, schools of education, and industrial and cultural organizations who would know the educational problems of an area, who would be competent to design and direct programs attacking those problems, and who would have the experience and authority to operate in the jurisdictions affected by such programs (R4, 2).

These laboratories were founded in 1966 as independent, non-profit corporations sponsored by the U.S. Office of Education. Each unit is located in a different area of the country. The problems studied vary according to the area needs. For example the Appalachia Educational Laboratory has done considerable work in the field of educational cooperatives as applied to the eastern mountain country. In addition much work has been done in job orientation, pre-school education and occupational information (R4, 2).

Higher education is the major study of the Regional Laboratory in the Carolinas. CEMREL--Central Midwestern Regional Educational Laboratory, is working in six major areas including the Metropolitan St. Louis Social Studies Center and computer-assisted instruction in mathematics (R4; C29, 1). The Northwest Regional Educational Laboratory located in Portland, Oregon, is carrying on several programs, including study of the small school. Another phase of their work involves a program called Computer Utility for Educational Systems (CUES) which is a "concept which would allow all pupils in grades 9-14 in a wide geographic area to have access to computer power. The concept suggests remote terminal access to a large, centrally located computer" (N6; N47).

An indication of support for these laboratories is found in the Far West Laboratory for Educational Research and Development. As of November 30, 1969, the following groups were affiliated with the lab.: University of California, California State Board of Education, California State Colleges, Monterey County Schools, San Francisco, California Unified School District, University of Nevada, Nevada State Board of Education, University of Utah and the Utah State Board of Education (F3).

10. Educational Resources Information Center (ERIC)

The ERIC system is also federally sponsored by the Office of Education. There are close to 20 clearinghouses about the nation. These are located at universities and learned societies. Each clearinghouse specializes in a phase of education. For instance Stanford University has the educational technology, library and information science and the University of Oregon the educational administration and school planning fields. Information is gleaned from all quarters, is abstracted and placed in the monthly journals, Research in Education (documents) and in the Current Index to Journals in Education. Microfiche or hardcopy is available at a very nominal charge for most of the materials listed in Research in Education.

> ERIC keeps the educational community informed by selecting, abstracting, storing, retrieving, and disseminating thousands of educational reports, papers, and journals each month (E13, 1).

Through this cooperative activity, the educator has "access to virtually all current, significant literature relevant to education" (E13, 3).

11. Teaching materials centers

The Commonwealth of Pennsylvania has established three area teaching materials centers under the auspices of the Division of School Libraries. They are located in Pittsburgh, Harrisburg and in Upper Darby, a Philadelphia suburb.

Teachers, audiovisual specialists, librarians and administrators may inspect and use various audiovisual items, textbooks, professional media, and library materials used in the schools. In-service workshops are also held. A school library development advisor is in charge of each center (P13).

The City of Detroit, Michigan has a Curriculum Laboratory with similar services as listed above. Very little is available in this area on the intermediate level within the state. Syropoulos suggests the need for sub-regional units in large school districts as well as units in multi-districts where the population is scattered. In addition there is a felt need for back-up service in items too costly for single districts to purchase (S70).

A typical curriculum laboratory, such as that at Detroit, would have the following:

bibliographies
curriculum guides
information file material
lesson plans
microforms
newsletters and services
research publications and services
resource catalogs
standardized tests
units of study (S70, 3)

In addition a typical center may have production facilities, such as graphic production, duplicating, dry mount presses etc.

The Exhibit Library of Instructional Materials for Louisville, Kentucky has similar services as mentioned. The patronage of the library includes the following groups:

University of Louisville	Kentucky Southern College
Parochial school personnel	Vista workers
Jefferson County schools	private schools

parents of children in both Jefferson County and Louisville (L31, 1-3)

The Supplementary Education Centers established under Title III funds of ESEA (Elementary and Secondary Education Act) frequently have professional collections (G48, 25). Many of the county school libraries maintain such collections, as is true of most teacher training institutions (H28, 137). Frequently these are available to both inservice teachers as well as teachers-in-training.

12. Educational Information Centers

The United States Office of Education has a directory which lists 397 information centers, most of which are regional or cooperative in nature. The listing does not claim to be exhaustive. A sampling of the directory will be given in order to attempt to give an idea of what is being done. (See Table V).

As is obvious, these centers serve functions other than information. The concept of working together is found in most every state of the Union involving virtually every phase of education.

TABLE V. SAMPLING OF EDUCATIONAL INFORMATION CENTERS

Harrison, Ark.	Harrison Regional Arts and Crafts Center
Bellflower, Calif.	Creativity and Participation in Music Ed.
Berkeley, Calif.	Project EPOCH--Educational Programming of Cultural Heritage
Red Bluff, Calif.	Calif. Small High School Project
Avon, Conn.	Talcott Mt. Science Center for Student Involvement
Douglas, Ga.	Eighth Congressional District Honors Program
American Falls, Ida.	Program of Outdoor Ed. for Southern Ida.
Bloomington, Ind.	School Research Information Service
Ottumwa, Iowa	Area XV Media Resource and Data Control Center
Lawrence, Kansas	Special Education Instructional Materials Center
Shawnee Mission, Ks.	Language Arts Instructional Center
Newport, Me.	Elementary Curriculum Coordination
Bedford, Mass.	Center for the Study of Sex and Family Living Education
Ypsilanti, Mich.	Ypsilanti Preschool Curriculum Demonstration Project
Minneapolis, Minn.	Work Opportunity Center
Natchez, Miss.	Perceptual Development Center for Dyslexic Children
St. Louis, Mo.	Metropolitan Education Center in the Arts
Havre, Mont.	Mobile Vocational Guidance Laboratory
Parsippany, N.J.	Asian and Critical Language Culture Resource Center

TABLE V (Continued)

Canajoharie, N.Y.	A Health, Physical Education and Recreation Center
New York, N.Y.	Center for Urban Education
Beaufort, N.C.	Regional Marine Science Project
Grand Forks, N.D.	Research Coordinating Unit for Vocational Education
N. Charleston, S.C.	Educational Development Center, Region One
Waterton, S.D.	Lake Region Educational Planning Center
Austin, Texas	Management Information Center
College Station, Tex.	Creative Application of Technology to Education (CATE)
Brigham, Utah	Instructional Service Center, Bureau of Indian Affairs
Montpelier, Vt.	Action Center
Powhatan, Va.	Fine Arts in Rural Schools
Kelso, Wash.	Comlitz-Wahkiakum Inservice Educ. Center
Lander, Wyoming	Conservation Center for Creative Learning (S71)

13. A Michigan Information System

The study on an educational information system for Michigan has suggested that the work be concentrated on the state and regional levels, though encouragement should be given to local units also. It is suggested that seven regional offices be set up, using the Wayne County Assist Center as a prototype. The suggested functions for these regional centers are to:

1. Provide reference and current awareness services to local districts and educators
2. Maintain a comprehensive educational reference collection
3. Identify, gather, and process local materials for center and system use
4. Identify human and institutional resources and evaluate them as to their relevance to regional and state-wide needs
5. Create and maintain special collections in areas of regional interest for center and system-wide use
6. Create and maintain an information file on significant topics
7. Identify and assess regional needs
8. Publicize the system and maintain close laison with local districts and educators
9. Assist local districts to establish their own information services and train local personnel
10. Act as a referral agency to sources of management information, dissemination activities, and audiovisual materials and equipment (G49, 45).

As of this writing, implementation has not occurred and one trial program was dropped (M39).

14. Curricula

This phase has been explored and utilized in all areas. There have been over 200 different projects such as the Western States Small Schools Project, The Texas Small Schools Project and the Upper Midwest Small Schools Project. As will be noted later various subject areas have been studied on a regional or cooperative basis, such as the fine arts, science, outdoor education etc.

For some years it has been common practice for schools to cooperate in the production of curriculum guides. One possible approach to cooperative media and curriculum improvement might come by subject area assignment, such as suggested by one study:

> Member schools might be assigned the responsibility for generating material in specific subject areas. For example, a school in North Carolina could be assigned the task of developing instructional programs in high school economics. Local video tape recording systems could be used to produce the instructional material and tapes could then be transported to the central television studio for editing and distribution (G22, 26).

The New York State BOCES--Board of Cooperative Educational Services has curricular services. The unit in suburban Buffalo is an example where they have a Curriculum-Communications Center for Innovations in Education. This center is wishing to bridge the gap between ideas and theories and the application to the classroom. In-service workshops ranging from 10 to 50 hours each are held, carrying salary credit as an impetus for attendance (S28, 143-144).

Various foundations and government funds have sponsored curriculum studies which involve regional laboratories, school districts and similar organizations. Typical of these are the School Mathematics Study Group, The Greater Cleveland Social Studies program, the Nebraska Physical Science Study and literally scores of others.

15. Summary and comment

Educational service centers may be rather comprehensive in their services or specialized. A typical full service regional educational service center will offer services in the following major areas: administrative services, curricular services, media services, special education, pupil and staff personnel services.

Many of the centers specialize in one or but several of the major areas listed, with the media center being quite common. Some of the centers have administrative powers while others are but service centers. Some may tax and others have no such powers.

Another type of regional organization is that of the regional educational laboratories which is established primarily for research and dissemination purposes. The Educational Resources Information Center (ERIC) has almost 20 clearinghouses about the nation to gather materials on educational research with each unit specializing on one major phase of education.

The teaching materials centers are materials centers specializing in the teacher education function. They are also known as curriculum centers or laboratories. These establishments may be rather parochial or evolve into somewhat of a regional center.

Various research and curriculum projects about the country have become information centers inasmuch as they are carrying on innovative programs and the results from these studies and practices are of value to similar groups. A vast number of these are sponsored by the federal government and dissemination is a part of the total plan. Some centers have been established as information centers primarily rather than as the output agent for local research. Some of these centers employ computers and various retrieval techniques.

It is said that necessity is the mother of invention. If such is the case, the mushrooming growth of various types of educational service centers of a cooperative/regional nature should be an indication that there is a need for such an establishment. It is of interest to note that most of these cooperative programs encompass a region in which the individual schools or school districts have found that they cannot keep up with the spiraling costs and increased demands on education.

It should be noted that the cooperatives are being utilized in the Appalachia section of the country, among the poorest in the east. Iowa, Nebraska and Wisconsin, out in the midwest where the economy is undergoing a transition, are forerunners in the regional educational center concept. Upstate New York has been in the evolutionary stages of such centers for several years. The nucleus of state-wide programs is found in Georgia, Colorado, Oregon, and other states. In some cases, such as Texas and Pennsylvania, a statewide system of regional centers is coming into being. Though this paper is not encyclopedic in intent, other centers are noted later with further details, such as those in Michigan, Virginia, South Dakota and elsewhere.

At this juncture the idea is definitely on the upswing with every indication of expanding. It is thus that the denominational school system should take heed of developments in the field.

CHAPTER 7

FINANCING THE REGIONAL EDUCATIONAL SERVICE CENTER

1. The problem in brief

Volumes have been written on the financial aspects of education. One can hardly peruse a daily newspaper without being made acutely aware of the money problems facing the schools. Government budgets are rising at a phenomenal rate. The tentative budget for Berrien County, Michigan for 1972 is up 28 per cent over 1971 and will require 48 per cent more in local tax dollars (T13, 1). Even though this county is rich agriculturally as well as industrially, education budgets are being slashed, teachers are being left without employment. The picture can be repeated a thousand-fold across the nation.

As the literature is searched, it becomes evident that many schools have found the necessity of stretching the dollar. This is even more apparent in the rising salaries that the education profession is demanding and the increased costs of construction which are relatively higher than other phases of the economy at this juncture. The increased impetus upon the multi-media concept is also adding to expenses.

This chapter can be but a survey of financial aspects of the regional program. Nevertheless, certain phases must be considered in order to gain an over-all viewpoint of the problem.

2. What are the costs to be considered?

One phase of the service function is that of special education. In Westchester County, N.Y. they found that the annual costs for educating a mentally retarded youngster ran $1 715 in the 1966-1967 school year. It cost $2 636 to assist an emotionally disturbed child or one with brain damage (R19, 93).

It must also be considered that the number of children in this category is not great, relative to normal youngsters, thus making it virtually mandatory that there be some sort of cooperation in more ways than one.

Similar figures might be given for the high costs of vocational education, speech therapy, advanced science courses, outdoor education and others.

Another field to consider is educational media, which is growing at a drastic rate. Assuming the values, for instance, of instructional television and computer-assisted instruction, the high costs are such that it is a necessity that there be cooperative applications and cost sharing. Of course, even with cost sharing, computer-assisted instruction (CAI) costs are high; but at least they are feasible when done on a shared time basis. Television use has been brought down to a very reasonable level in many areas, such as those in the MPATI area in the Upper Midwest and Great Lakes Area, though the original program has been modified. Nebraska's state-wide open channel system has been very satisfactory, overall (C61, 65-67). It costs but a few dollars annually to provide instruction for each pupil when it is done cooperatively.

A more detailed breakdown will be given in the accompanying chart to give an indication of relative costs for varied sizes of school groupings. For purposes of this chart, a local district is considered to be 80 square miles with a six mile radius and 15 000 pupils. The city system would be 70 square miles with a radius of six miles and a student population of 150 000. The metropolitan area would be 1 500 square miles with a radius of 30 miles and a pupil enrollment of 600 000. The State being 40 000 square miles without a metropolitan area, the Region would be a larger area than that which is typically called a "region" in most of the educational literature. It would encompass 550 000 square miles and have several metropolitan areas and 10 000 000 pupils.

It will be noted that in most cases the local district has the highest per capita use costs of any of the groups. In some instances the costs are four times as much, and in this study, in only one area could it compare favorably and that in 16mm film. This would be true only in a larger district because of the high original costs of films. In addition, in regard to 16mm film, the variety of the collection is not involved as a cost factor. Usually, the larger the area or population involved, the better chance of achieving a well-balanced collection.

The enclosed figures are but an indication of costs involved. Capital expenditures must be considered, such as the housing, vehicles, equipment, furnishings etc. In addition there is real estate, site improvement, landscaping and a host of similar costs.

TABLE VI

COSTS PER CAPITA OF VARIOUS MEDIA IN VARIOUS LOCALE

	Airborne television	VHF (very high frequency) T.V.	Instructional television fixed service (ITFS) TV	Closed circuit television (CCTV)	Satellite television	Video-tape recording television (VTR TV)	16 mm film	Single channel radio	Four channel radio	Educasting system	Dial access system	Language learning laboratory system
Local District		41,67*	31,29	33,77		64,01	51,71	5,12	8,88		8,44	6,63
City System		11,01	10,74	10,81			49,25	2,07	3,17		4,17	4,44
Metropolitan		9,11	9,69	10,37			51,37	1,77	2,60	3,38	3,97	
State	11,26	11,71	9,44	12,96			58,73	2,20	3,52	4,00		
Region	8,36	9,67	7,51	12,20	7,06			1,89	2,61	3,34		
Elementary												28,56
Secondary												9,52
College												4,79

Dial Access for a college--audio $17,73/student (*The comma is equivalent to the U.S. decimal)

Dial Access for a college--video $38,58/student

(G23)

Personnel costs must also be considered. In a later chapter more will be said on this, though at this juncture it is introduced as a cost factor to be considered in any budgeting and general feasibility studies (G23).

3. Per capita costs

The figures cited here are but indicators for there are a host of variables in arriving at a per pupil cost. As an example a Michigan study showed that regional media centers in the state spent $1,16 ($1.16) per child during the 1969-1970 school year. $.468 of this went towards the media budget, and $.607 went for administrative budget (K4, 18).

The regional center in Portland, Maine, which serves over 41 000 pupils and over 2 100 teachers in the area, had a budget of close to $250 000. This figures about six dollars per pupil. Their services include materials, maintenance of a professional library, production, in-service training, previewing facilities, technical processes, etc. (G41, 13-19).

The San Ramon Valley Unified School District in Contra Costa County in coastal Central California, serves a generally upper middle class area. The district is comprised of two high schools, ten elementary schools and about 8 000 pupils. Their library budget for 1967-1968 was as follows:

Books	$32 000	$8,10 per child	($8.10)
Non-book materials	16 000	4,00 per child	($4.00)
Periodicals	4 000	1,00 per child	($1.C0)
	$52 000	$13,00 per child	($13.00) (W24).

It is not suggested that this is typical, but it does indicate what one suburban community is accomplishing.

Another report suggests that they plan on spending about eight dollars ($8,00) per pupil during the fiscal year (D6, 2). Without going into an in-depth study, it would appear that the per pupil costs are within reason, for most areas.

4. Media standards

Though there is much discussion among librarians and media specialists in general regarding the quantitative factors of what comprises a good media collection, yet there appears to be some concurrence to some degree. The Joint Standards of the American Association of School Librarians and the Department of Audiovisual Instruction of the N.E.A. (now the Association for Education Communication and Technology) are probably the most well-known. The following statement gives a few summary statements on this report:

> Standards for basic media collections are raised substantially. For example, the recommendations of 20 volumes per student is double the previous 1960 standards of AASL. The new media standards for the first time include DAVI recommendations on 'software'--e.g. three filmstrips prints per student, access to 3,000 titles in 16mm film, 6 records or tapes per student. The new yardstick for a quality media program also calls for expenditure on materials of not less than 6% of the national average per pupil operation cost.

> One full-time media specialist should be provided for each 250 students. In addition, it is recommended that each school have a technician with graphics ability and a media aide to help each media specialist. . . .
> Media centers should be open all day, including before and after school (M18, 4).

The State regulations for Pennsylvania state that by September of 1970 each "school district shall have a library book collection of no less than ten carefully selected titles per elementary and secondary pupil or a collection of 10 000 titles per school, whichever is smaller" (P13, 3). The regulations also states that the library program is to have non-print items also.

By September of 1973 each school district is to have a fulltime, certified teacher or school librarian to coordinate the program who will have completed certification requirements as a certified school librarian. In addition every secondary school shall employ a full-time, certified school librarian (P13, 3).

It should be pointed out that in many areas the multi-media idea has been tantamount to the employing of a media specialist who is both a librarian and audiovisual specialist in one person. The facilities are joint. The Joint Standards of the AASL and DAVI suggest a unified approach.

Gilman suggests that a large portion of audiovisual specialists have no interest in library procedures and alternately, most librarians have no interest or competencies in audiovisual. In essence he feels that programs should be cooperative rather than joint or unified. As it is, a media specialist in A.V. needs 13 different broad competencies. The librarian has a different set of basic competencies.

Inasmuch as 75 per cent of pupils are educated in school systems of 3 000 or more pupils, there would appear to be room both for the librarian and for the audiovisual person (G36, 58-60). Other authors have made similar observations. Whatever the case, most of the so-called "progressive" thinkers feel there should be definite correlation in the program in one form or another.

5. Budgetary considerations

The three-county regional service center located in Salisbury, Maryland might serve as an example, a case study in brief of a budget. This center serves about 25 000 pupils. This facility is a varied service center with a rather complete service commitment, as commonly found among such establishments.

For three years of operation, the budget amounted to about $773 000. They also had a special grant of $15 000 for health and drug materials and a $2 250 grant for films and a communication workshop. Starting costs were about $275 000 and about a half million in operating. At the time of this report, they figure it would cost about $235 000 annually to maintain the program. This would include a staff of 22, with about a dozen of these professionals.

Total educational costs have been figured at $632,24 ($632,24) in Salisbury with $11,04 ($11.04) going for the service phases. Maryland's average per pupil cost was running $739,58 ($739.58) (E14, 11, 54-56).

Quite obviously in order for these figures to take on complete meaning, a breakdown of the budget would be required. However, the idea here is to gain a perspective. Another example to consider, is that of a center in the Pascack Valley in New Jersey. This is a smaller operation than the one in Maryland for it is serving 11 643 pupils with an annual administrative budget of $55 700.

Salaries	$37 000
Other expenses	5 900
Fixed charges	5 800
Contracted services	4 200
Debt service	2 700

Each of the eight districts pays its proportional share. For instance Montvale District with its 698 pupils pays six per cent of the operating cost, which is $3 342, whereas Westwood with its 3 458 pupils pays 29.7 per cent of the budget which amounts to $16 544. These figures are for the 1963-1964 school year and encompass the administrative budget (H21, 112).

As might be expected, viewpoints vary. However, one author has suggested, in regard to a public library, that it is proposed that $25 000 be considered minimal for an annual operating budget.

> If the community cannot assure at least this much support, consideration should be given to: (1) combining with other communities to provide a larger tax and population base, or (2) contracting with an already existing larger library to furnish service to the community. Either of these alternatives will yield much more library service per dollar in the long run (D21, 5).

A regional service center is more than a library, but the principle is similar and should be considered in making decisions, partially in that a library is a segment of the service center quite often.

The area around southwestern Missouri is generally not considered as a prosperous section of the nation, thus there would probably be the necessity of maintaining a tight budget. After trying a flat rate per book processed, the southwestern Missouri Library Service decided upon a pro rata basis.

> For instance, if the total income is $15,000, that library's share of the center's budget is 10%. . . . Libraries joining the Service at some time other than the beginning of the year, pay a flat rate of 50¢ per book processed until the beginning of the new fiscal year, at which time a new budget is determined by the board and each library is reassessed (C16, 4).

New libraries joining pay an admission fee of one-fourth of what their annual fee would have been that previous year. This is so that the new member may help carry the burden of "capital and development expenses," which had already been born by the other members (C16, 4-5).

6. Total average student costs and percentage allocated to media

A Nebraska study gave indication that the smaller districts with pupil populations numbering in the hundreds spent up to four times more for administrative items than districts numbering in the thousands. Instructional costs didn't vary much. Facility costs did not vary much either, however, "other school services" were up to four times as high as the larger units of several thousand pupils. It was also found that the overall "average cost per pupil" ran from 50 per cent to 100 per cent more with a range of $450 among larger districts up to $1 283 for districts with a K-12 enrollment of 25-100. Those with 100 to 180 dropped to about $700, with the general overall average being less among the larger districts and schools (S13, 18-22).

Other studies have arrived at similar figures though without doubt there are many factors to consider. It is generally conceded that very small districts have a difficult time maintaining a good program at any reasonable cost. Excessive largeness brings on other problems and not necessarily a drop in overall costs.

One recommendation for apportionment is that a minimum of 6 per cent of the average per pupil cost be spent on a media center, exclusive of salaries, equipment, textbooks, reference and supplementary books housed permanently in the classroom. Supplies would be in addition to this percentage. New facilities would require a special appropriation in addition to the regular budget in order to establish an initial collection (M24, 10).

In consideration of the above recommendation, it should be remembered that there will more than likely be several levels of media centers, such as the local school, the district and the region, each with a special function to serve.

The Encyclopedia Brittanica annually gives awards to those elementary school libraries within a given district for their outstanding growth. One should observe the percentage of the budget spent on the library relative to the total budget. These figures are inclusive of media and salaries. In the United States during 1960-1961, 1.7 per cent of the overall school district budget was spent on libraries (M4). Among the finalists for the awards, the districts spent 4 per cent during 1963, 3.2 per cent in 1964 and 3.7 per cent in 1967 with some districts running over 10 per cent, though very possibly this was a special thrust, rather than an annual, year-after-year procedure. Expenditures are not the only factor in quality, but from these awards there does seem to be a definite correlation (G4, 9).

7. Financial sources

It can be generally said that public centers are supported by taxes and these are usually from several governmental levels. For example the PERC (Panhandle Educational Resources Center) unit in western Nebraska receives funds from the following three sources:

1. Federal funds
2. Chadron State College (public)
3. Educational Service Units number 17, 18, and 19, which comprise a number of counties (N13).

Another report suggests four levels of revenue:

1. federal
2. state
3. local district(s)
4. direct legislative appropriations

It is also suggested that metropolitan cooperative units gain revenue from the same sources (B1, 22).

8. Taxing

Some regional centers have taxing authority, while it appears a larger number do not (G43, 9). Wisconsin does not give this right to the Cooperative Educational Service Agencies, but rather the agency renders services under contract to member districts.

Within the Wisconsin system, each agency is given $29 000 for administrative costs under various conditions, which basically is that of giving a certified statement as to expenses for the prior year (W35, 22-23). These expenses may include salaries, travel, housing and equipment associated with the service provided (W35, 23).

Another system that does not have taxing authority are the BOCES units in New York State. Again, the local district requests services from the Board of Cooperative Educational Services and pays on the basis of the true valuation of property in the board area. If it has 10 per cent of the value, it pays 10 per cent of the administrative expense, irregardless of the services received. After this assessment of their share, they receive state aid based on the amount paid. It appears that the state has used this procedure to encourage use of these units. If the districts don't use them, they lose state money (S44, 7; R19, 62).

One report has given the following five elements for financial success in the regional endeavor:

* The AESD should be supported from a combination of local taxes, state aid, and receipts from local districts for services performed.

* The AESD should have taxing authority.

* State aid should serve as an incentive for program development and operation.

* Equalization of assessments within and among counties is essential in planning for area and regional districts.

* Some participants expressed reluctance to create new tax-units (G43, 9).

"To tax or not to tax" seems up to question, but most agree that expenses should be apportioned in a fair way according to resources, services rendered and property valuation.

9. What effect has federal funding had and what effect will there be when it is withdrawn?

Federal funds have done much, however, it seems that those programs operated more with local funds and incentive have held together better. The center in Red Oaks, Iowa has involved schools in seven counties. Though federal funds have been used, local capital has been used as well as local incentive. Because of the extra funding, the costs have been about five dollars annually for services on a per capita basis (H29, 4).

Though some centers dissolved when the federal monies dissolved, the Red Oak unit grew with growth to an eight county service area involving 17 000 pupils and costing $8 per capita (T32).

Mary Gaver reports regarding the effects of this funding in the Emerging Media Center. Paramus, New Jersey found a greater impetus to system-wide coordination as well as a union catalog. Montgomery County, Maryland now has centralized processing of non-print materials. Dade County, Florida has provided central processing for school libraries without clerks.

There is a negative factor, which has been mentioned by several reporters. It has been a problem having the additional materials "without additional staff and clerical help and thus has added a great deal of organizational work to an already overcrowded schedule of library staff." This is particularly understandable inasmuch as this was in New York City where the logistics would be astronomical (G4, 48).

The withdrawal of federal funds has had three effects on the three counties involved in a regional program in eastern Maryland.

Wicomico County which is the most populous and wealthy, will continue the full program on its own. Dorchester County, second in wealth, will continue the film deliveries, repairs, offset printing etc., as well as the special education program as when with the Title VI program. Somerset, the least wealthy, will not participate in the center other than with the handicapped program which is still funded with federal monies (E14, 68).

One investigator has found some interesting relationships between costs to the local district for a center and their interest in the adoption of the program. No doubt these relationships have some effect on whether a district joins in the first place and also remain within a voluntary cooperative arrangement, when the federal funding is withdrawn.

The districts would adopt the program when:

No cost to the local school district	86.67 per cent
At one dollar per pupil, A.D.A.	73.34 per cent
At two dollars per pupil, A.D.A.	18.85 per cent

"The investigator assumes that as the expenditure for joining the cooperative increased, the rate of adoption decreased" (H17, 132).

Evidently there is a balance between costs and resultant services. There may be a point of diminishing returns thus there is need for much administrative acumen.

10. What are the financial values of the Regional Educational Service Center?

Many of the answers to this question will be found elsewhere in this paper. As one weighs this question, it should be kept in mind that not all values can be weighed in this fashion; however, it does appear that most of the reports do show that when all factors are considered, the cooperative approach does indeed save dollars on comparable services.

The Southeast Educational Service Center of South Dakota has shown that by sharing the services of a micro-filming unit they were able to save time and money immediately. Each school could film about 2 000 documents upon a single roll of film which cost $5,50 ($5.50), including processing.

> The broader benefit, and the real 'innovation' of the service, was that the principle could be applied to shared equipment, shared-time, special educational personnel, and a host of other applications (S40, 22).

One school district in Pennsylvania used films whose cost to rent would have been $2 500, but because of its belonging to a center it cost them $285 (K18, 8).

Another example of cost savings by cooperation is seen in the pool purchasing program in Los Angeles in which they boast that they save as much as 40 per cent. Other savings are made by the center doing its own maintenance, production of graphics, duplication of audio and video tapes, printing and similar services (K18, 12).

The regional center located in Salisbury, Maryland claims to have saved the area about $20 000 during a three year period in just one area of their activity, that of doing their own offset printing. This center serves 24 000 pupils (E14, 41).

An evidence for cooperation can be observed indirectly by noting commercial operations. With them it is a matter of dollars and cents, thus every corner must be trimmed. No doubt education could learn much from these sources. Typically a company will have a centralized computing facility with terminals. Personnel services benefit, as well as advertising, transportation, etc.

In reviewing the literature, few, if any, noted increased costs in cooperative programs on comparable services, unless there was a resultant gain which brought costs up, but in so doing quality was gained.

11. Contracting services

The practice of contracting services is used in many areas with various ramifications. Many schools have maintenance contracts with commercial firms, such as with duplicating equipment, typewriters, photocopy machines, etc. In other cases, the actual equipment is leased through a firm.

In some districts certain special services are contracted out, such as school health programs are contracted with the local public health office. In other instances speech therapy or some special education program is contracted with the county or with a regional center.

This concept could be followed through many different channels about the country. One example of contracted services is that found in California. The State Education Code stipulates that a minimum of $100 be the contract fee for county library services for each 35 units of A.D.A.--Average Daily Attendance. In practice this varies from $80 to $175 (H28, 136).

The approach commonly used is to figure costs and then "price" the services to those wishing to use them. As might be expected, there is usually a narrow margin which becomes precarious fiscally, for the concept is not to make profit but to bring services to the school districts at a minimal rate.

An Iowa study suggests using the contractual agreement as one way of financing, but it should not be a basic source, however, for the following reasons:

1. It makes the regional educational service agency dependent upon 'year-to-year contractual agreements, making staffing and long-range planning difficult for both service unit and constituent local districts.
2. It is unrealistic from the standpoint of the local school districts in that it usually places them in the untenable position of being financially unable to contract for a service when they are perhaps in greatest need of it (15, 420).

The study proceeds to suggest the contracting of services with other public and private educational agencies. The federal government does this procedure frequently, such as in research studies, writing of reports and the like.

No doubt a local regional educational service center would have to make a cost analysis of their own operations and also check into costs for contracted services in order to determine which costs less in the long run. Generally speaking the literature gives evidence that the local unit can do a given job for less, unless the contracted service is performed on a non-profit basis, in which case the costs might be less inasmuch as several groups may be helping to lessen the per unit cost of the service. Usually the more that share the costs, the less the per unit expenditure.

12. Summary and comment

One of the factors that has forced schools and school districts into cooperative endeavors has been the diminishing value of the dollar along with the increased costs caused by increasing wages and the increasing complexity of modern life.

Frequently a school can manage the ordinary expenses of education if it has a sufficiently large pupil base, but it begins to have real problems when it comes to the implementation of some of the newer innovations of education, the acquiring and operating some of the newer types of media, the special education program for the mentally handicapped as well as other rather sophisticated services that are being utilized.

It costs several times more to educate an exceptional child than a normal one. Though some media can, and should, be kept in the local school or district, some of it is just too expensive for a smaller unit to purchase and maintain, yet alone obtain software of ample variety and depth. In other cases, though the local unit could obtain the items, the variety of software is limited, whereas if cooperatively purchased and distributed, all could benefit by the greater amount of availability for the same dollar. Otherwise for a given dollar, more is obtained, some feeling it amounts to 50 per cent or more. In other situations the items or services could not be obtained, were it not for the regional organization.

One major authority suggests that 6 per cent of the budget be spent on materials of teaching. Others give the figure as about five dollars annually for media for each pupil. Obviously this per capita amount can be spent just as easily in a small school as in a larger school or district. School one spends its $500 on "X" amount of basic media items. School two does the same for the same general basic collection and of course school three duplicates the same items, for all practical purposes. So there exist three collections of virtually the same thing 15 miles apart, each way. It reminds one of the two donkies and the piles of straw with each trying to eat his pile and not being able to do it because of their being tied together. It was not till they cooperated that each got his fill. The cooperative concept illustrated here, applies basically to the three schools. By working together they could have three times the variety of materials, not three collections of the same.

In general, regional/cooperative programs have not cost more than individual programs in aggregate. On the contrary they usually have cost less and given more for the money. Financial benefits are one of the strong benefits of cooperative programs.

CHAPTER 8

PHYSICAL ASPECTS OF THE REGIONAL EDUCATIONAL SERVICE CENTER

1. The size of the intermediate level of administration

Generally speaking, the regional service center, whatever its nomenclature, is a cooperative venture either among schools or school districts and thus organizationally lies between the local school and the state level. This is the intermediate district level.

What is the most efficient size? Where can the most economies come? How can all concerned be best served? In regards to the proper size or extent of a regional agency, Stephens suggests the following:

1. Sufficient to provide challenging opportunities for educational leadership,
2. to have well-prepared professional personnel to carry out a variety of needed special service programs, and
3. to provide a maximum of offering of programs and services so that present and future needs can be met (S58, 6).

It should not be too large or it may be inaccessible and lack good communication, coordination and sensitivity to special local needs (S58, 6).

> Several qualifications regarding the intermediate district size usually accompany enrollment criterion. These qualifications include a maximum driving time of one hour from the intermediate office to any local district attendance center in the intermediate corporation, a maximum radius of 50 to 60 miles, and an optimum intermediate district area based on a natural social-economic community (S58, 7).

The 50-60 mile radius figure is commonly mentioned in other sources, thus appears to be an acceptable size, mileage-wise.

2. Quantitative figures

Various figures are given as to the optimum size for the regional center, assuming the above qualifications or similar ones can be met. For instance several authorities suggest an enrollment of 10 000 would be appropriate for an "optimally effective" unit from an educational and economical standpoint (S26, 27).

Block mentions,

> It would seem that a pupil population of 10 000 is too small to be effective until one examines the sparsity of population in the state of Nebraska (B36, 36).

A similar situation exists in more states than not, such as Arizona or eastern Oregon, western North Carolina or most of Maine. In other areas there is the problem of natural barriers, such as found in the Sierra Nevadas or the bayous of Louisiana. Thus in some instances, no matter what the theoretical optimum size is, it just would not be practical.

The New York State BOCES program suggests that 5 000 to 6 000 is large enough to provide an ample program. However, it is here that another factor must be considered, namely of what services are being offered. The New York figure does not always include such services as special education for the handicapped, certain occupational education services, computer services, and computer assisted instruction. A larger enrollment base must be considered for these additional details. The larger BOCES units do have most of the services mentioned, however (C63).

Within New York, districts with an enrollment of over 125 000 are not allowed within a service district (BOCES). The regional center cares for these additional services for districts of 5 000 on through 125 000 with the larger units being able to handle their own programs to a greater degree.

Some feel an elementary school should average 300 to 400 or larger and the secondary school running at 1 000 to 1 500. Thus a K-12 district might run at 10 000 with a high school and supporting lower schools. Again, some suggest a district should run as high as 50 000 (I5, 317).

It must be kept in mind that school districts may or may not be relatively self-supporting with regards to educational services. Charts are presented with figures given as to local and intermediate district size as recommended by various states and another chart giving views held by various authors regarding intermediate districts. The level of services would vary considerably according to size and wealth of the district, whether local or intermediate.

3. What then is the optimum size for a center?

As can be noted from the authorities and legal recommendations, there is little agreement as to the optimum size of an administrative district which serves as an indicator of an efficient size. One figure range does appear to be a fairly safe middle ground or average, and that is 10 000-20 000 pupils. The sizes of intermediate districts recommended run from 5 000 to 125 000 (I12, 46). It must be kept in mind that what is included in the service program, has much to do

TABLE VII: APPROXIMATE PUPIL POPULATION AND TOTAL DISTRICT AREA IN SQUARE MILES FOR SIXTEEN ILLUSTRATIVE INTERMEDIATE UNITS

State	Agency	Approximate Pupil Population	Approximate Area In Square Miles
Washington	King (Seattle)	218 000	2 100*
Washington	Snohomish (Everett)	59 000	1 700*
Oregon	Multnomah (Portland)	110 000	400
Michigan	Wayne (Detroit)	335 000**	400
Michigan	Oakland (Pontiac)	220 000	900
Michigan	Shiawasee (Near Flint)	18 000	1 000
Pennsylvania	Bucks (Doylestown)	82 000	1 000
Pennsylvania	Allegheney (Pittsburgh)	206 000**	900
New York	Erie (Near Buffalo)	80 000	1 000*
Iowa	Polk (Des Moines)	63 000	600
Iowa	Scott-Muscatine (Davenport)	60 000	1 400
California	Contra-Costa (Near Oakland)	150 000	900
California	San Diego (San Diego)	290 000	4 300*
California	Alameda (Hayward)	240 000	700
California	Riverside (Riverside)	100 000	7 200*
Texas	Harris (Houston)	350 000	5 000*

* Driving time to at least one attendance center exceeds one hour.

** Central city public school enrollment not included.

(I4, 161).

TABLE VIII. ADMINISTRATIVE DISTRICT SIZE RECOMMENDED BY VARIOUS STATES

State	Size Recommendation
California	2 000 minimum, 10 000 recommended
Connecticut	Minimum of 5 000 ADM in regional school districts
Georgia	10 000 pupils minimum 15 000-20 000 pupils is better
Idaho (Superintendent's Association)	10 000-15 000 optimum 1 600 minimum 25 000-30 000 maximum
Indiana	1 000
Kansas	1 200
Maine	1 200
Michigan	2 000
New York	No specific size of district, but attendance units suggested indicated about a 2 000 pupil district size
Pennsylvania	1 600 pupils mandated 4 000 pupils recommended
Vermont	2 000 to 6 000
Washington	1 000

(S13, 44)

TABLE IX. ADMINISTRATIVE DISTRICT SIZES RECOMMENDED BY WRITERS IN THE FIELD

Authority	Size Recommendation
Harlan Beem	11 000 pupils for complete program
Virgil Blanke	10 000-15 000 pupils unless intermediate services are available
Roald Campbell	2 000 minimum
C. C. Carpenter	1 250 minimum
Howard Dawson	9 800-12 000
C. O. Fitzwater	5 000 pupils for reasonable cost program
Calvin Grieder	Range of 2 000-3 000 pupils
William P. McLure	5 000-6 000 pupils
Edgar L. Morphet	1 200-1 500 minimum 4 000-5 000 better 10 000-common good minimum

(S13, 43).

with the optimum size unit. The chapter on services discussed the many and varied types of services that are rendered, which affect the size greatly. Many factors would be involved in arriving at an "optimum" size region. Several of these factors would be:

1. Density of population as well as distribution
2. Fiscal condition of the region involved
3. Topography, land forms and weather conditions
4. What services are being offered
5. Transportation and distribution procedures

6. Current and potential personnel at the center
7. Demographic and sociological conditions
8. General accessability, highways, parking
9. Enrollments, types of schools, school organization
10. Political climate, local philosophical thinking
11. Educational needs--curricular and administrative
12. What services are already available via other agencies
13. Distribution of services: local, regional, state, etc.
14. Financing program available or proposed
15. What exotic media services are involved Special education

Optimum size? No doubt, no figures could be cited that would be feasible for all areas, for there are just too many limiting factors involved.

4. The county as the intermediate unit or region

For some years the county served as the intermediate unit. This unit was primarily an administrative unit and in many sections of the country its function has changed little. In other sections of the land, the county has taken on many service functions. California is an example of the latter (C8).

Aside from the role changes in the intermediate level, the question at this juncture is the appropriate physical size. Does the county still qualify as the logical region for optimum usage and efficient management of a regional educational service unit? Aside from the 15 or so factors listed which would affect the best region size, there is another rather important point to keep in mind. That is, how big is a county? San Bernardino County in southern California has an area of over 20 000 square miles (S4, 544), while in the eastern portion of the United States one could combine the states of Rhode Island, Connecticut, Massachusetts and Delaware and they would still not be as large as this one county (W39, 212). In some areas the county and the city are one, such as San Francisco and Baltimore. Thus some counties are large and some small, some very dense in population and others lightly populated.

Generally speaking, however, it is felt that the typical county, such as might be found in Kansas or Wisconsin, outside of the metropolitan areas, is not of sufficient size to maintain a quality service center. Most of the regional centers are multi-county in extent, such as Nebraska (S13, 86), Iowa (I5, 286), Pennsylvania (C44, 125), Ohio (P10, 112) and Wisconsin (W35).

The population base is enlarged in these multi-county units, thus allowing services that probably could not be maintained otherwise. General administration is still vested in the local school district, though even here the local school district is increasing in size as various consolidating procedures are employed. Some administrative procedures can best be implemented by a close relationship with the school, while others are better handled by experts in the various fields, such as curriculum and instruction, business administration, pool purchasing etc. (B9, 2).

The feeling among many is that an educational unit should not be patterned around existing political units, such as townships, counties or even cities, but rather should be geared to the needs of the area, taking into consideration all the various and sundry factors as enumerated here, such as transportation, demographic growth, financial resources, philosophical viewpoints and similar facets. Many political boundaries, if not most, were formed a century or so ago with an entirely different economy in mind. Should school boundaries be hampered by this organization? Whatever the answer, most agree that schools must do much rethinking of their status.

5. Decentralization and region sizes

There has been a movement in many areas to decentralize large school districts while during the last few decades there has been much emphasis on school district reorganization in order to have larger schools and school districts (S13). Anne Arundel County, Maryland is suggesting units of 10 000 to 12 000 pupils, with the maximum being 18 000 to 20 000 pupils. It should be kept in mind that these districts are concerned with general instructional and administrative programs as well as certain special services. Some services, to be efficient or even feasible, would have to have a larger pupil base (A37, 8).

The most common size for decentralized school districts appears to be between 18 000 and 25 000 (A37, 3). An Iowa study suggested a minimum public school enrollment of 30 000 in K-12 for the establishment of regional service areas (I8, 14). Of course it must be asked, is the decentralized district or the consolidated district--both of which seem to be arriving at a similar figure for an optimum size, the same figure as a regional service area? Quite obviously, this would be dependent upon what functions were involved.

Though the problems of the rural school are different in many ways from those of the urban school, yet in the final analysis both are aiming in the same direction. The rural schools are grouping together in order to arrive at a large enough base to offer that which is needed while many urban schools are decentralizing in order to arrive at a more workable base, at a more human situation. Both appear to be arriving at somewhat the same size for a working unit with the features of efficiency, quality in facilities, media, personnel, cost savings and similar positive values while as much as possible preserving the features of a smaller unit where people are still people with an individuality.

It does seem, from the literature, that the intermediate unit is fulfilling a very positive role in education. The rural school has its counterpart in the city, and little-by-little the urban schools are attempting to regain what they lost in the mass educational picture. Where size is required, it is employed, but wherever it is feasible, the services are brought as close to the ultimate consumer as possible.

6. The location of the regional educational service center

The location of the center will be dependent upon many factors, as might be expected. The type of services being rendered might be an important item to be considered. For instance an instructional television center would probably serve a smaller area than an educational television center, though even here, depending upon the type of program, the two might be in the same center serving an entire state, such as the Nebraska Educational Television Network (N15). In some cases the instructional television program might be within one school for part of its program, such as Union College (U1) and a portion of its program being cooperative and a member of a consortium, NETCHE, which is state-wide (N21). In this case, the location of the NETCHE center is of prime importance, not because of member colleges, but programming capability and technical equipment availability as well as inter-use with other agencies. NETCHE uses KUON-TV facilities at the University of Nebraska along with several other T.V. agencies of the state. Programs are then made available by videotapes through the NETCHE office or live broadcast from KUON-TV or any of the affiliate stations across the state. The videotapes are made available direct or by mail. Microwave facilities make programs available to virtually all the state (N15).

Communication is a key issue in the above situation. As far as member institutions of the NETCHE consortium are concerned, the location of the broadcast headquarters is rather immaterial. However, more typically an educational service center must be located rather central in relation to the member schools. The materials being used by the various schools must be readily available either via direct pickup by the school agent or by some means of public or private delivery, such as parcel post, express, or school truck. If the center provides special education services, consultant services or other services involving personnel, the travel time must be within reason.

Aside from physical distances for delivery of materials, and transportation issues with personnel, there is direct usage by school personnel within the region as a major factor. If it is overly awkward and time-consuming to utilize the regional educational service center, it will have partially failed in its function. One study indicated that

> . . . if the material and equipment are stored in the individual building 80 to 90 per cent of the teachers utilize them; whereas, if the materials and equipment are stored in a central depository only 15 to 20 per cent of the teachers utilize them (D15, 341).

Because of research and common observation of the habits of mankind, some school districts have decentralized their program. For instance, Gary, Indiana, has decentralized its media program so that each school has its own media laboratory. On the other hand, Torrance, California has a centralized center in which the teachers may come and "shop" for their teaching aids, utilizing shopping carts as found in supermarkets. If they wish, they may have the items delivered to the school.

Gary decentralizes and Torrance centralizes and no doubt both feel they did the correct thing. Actually the two approaches are not dichotomous for they both wish to best serve the clientele. DiSanto suggests that a sound program necessitates elements of both approaches.

> (1) The establishment of a central depository where extremely costly equipment and services are made available to the individual schools in the district; and (2) the establishment of independent media laboratories in each school stocked with the most frequently used material and equipment. Adoption of this approach insures the maximum utilization of materials and equipment by teachers and pupils and also results in the development of a comprehensive media service program for all schools in the district (D15, 342).

No doubt the general concept that he propounds would be true of other educational services as well as larger population bases in a regional program.

Another point to consider is that what is costly for one area will be relatively low cost in another. What is local in one section of the country will be long distance in other sections. That which is a must in one regional area will be expendable in another. Thus what is good in one area will not necessarily be appropriate in another.

Directly connected with the size of the region, will be the actual location of the center itself. Even if the schools within the region have a rather decentralized program of educational services there will no doubt eventually develop a regional center for those services which are not feasible on the local level. This threshold of what is to be offered locally and what district-wide and that which is regional will vary from sector to sector.

Generally speaking the center will be located in that spot which will serve the greatest proportion of the populace involved. The factors involved in this choice will be similar to those in arriving at the proper size, in certain aspects. Among the facets would be:

topography
geography
zoning
highways
transportation
mail service
weather conditions
laws and regulations
distribution of population
location of population centers
location of colleges etc.
political and sociological factors

The location then would be a consensus of all factors, including the type of services being offered.

Another possible approach is to have satellite centers, in addition to the main center. This has been done in Texas where the areas are geographically spread far apart and the population is sparse, particularly out in the cattle country. These areas, though large in acreage, do not have the population base to establish and maintain a full-fledged regional educational service center. It is thus that the state law allows the establishment of a satellite center which operates under the aegis of the central or main regional center (T17). The main center would offer the more exotic services as well as those services which could be most easily offered at a more remote center, whereas the satellite centers could offer those services and media which would be best served on as local a basis as possible and yet be economically feasible.

A variation on the satellite approach used in Texas is that being planned in the DILENOWISCO Educational Cooperative in western Virginia. This cooperative will link up with the special education materials center at George Washington University in Washington D.C. This local center will act as a "facilitator" in getting these unique teaching materials to the classroom teachers within the area of the cooperative. Similar special education materials centers are scattered about the country (D13, 29).

With these ideas in mind, one can see that various and sundry plans have been utilized to achieve the best program. Where the population base is sufficient, most regional centers are located within a one hour drive of each school within the region. The general extent of the region will encompass several counties, such as observed in Nebraska, Wisconsin or Ohio (S13, 86; W35; P10, 112).

An example of location is that of the Educational Service Center serving Somerset, Wicomico and Dorchester Counties on the eastern shore of Maryland. The area is 1 700 square miles and encompasses about 25 000 pupils and 1 150 teachers in 72 schools. The largest city is Salisbury with a population of 37 000. This city is located about 120 miles from four major cities: Norfolk, Washington D.C., Baltimore and Philadelphia. As might be expected, Salisbury is the center city of the area and rather logically it is here that the service center is located (E14, 1-10).

The central city will not always be the trading center of the area. Berrien County in southwestern Michigan has its largest population center in St. Joseph and Benton Harbor at the mouth of a river which empties into Lake Michigan. A major railroad passes through and large vessels dock there. The Berrien Intermediate District office is not located there, however, but rather at Berrien Springs which is more centrally located, though a much smaller community. With this location, all schools are within easy commuting distance and much less than an hour in driving time. Even during winter months the highways are kept clear of snow most of the time, thus weather is not a limiting factor in usage of the facilities (B22).

7. Facilities of the Regional Educational Service Center

Facilities being utilized for regional educational service centers vary widely. Frequently they are located in an unused building such as a store or warehouse. Some are located in planned educational complexes such as found in Sonoma County in northern California. In Cedar Rapids, Iowa, the center is located in a downtown office building. The Oakland County Intermediate Center is located in Pontiac, Michigan. The second floor is comprised of the two major phases of the media services, while the other offices are on first, third and fourth floors of the modern educational office building.

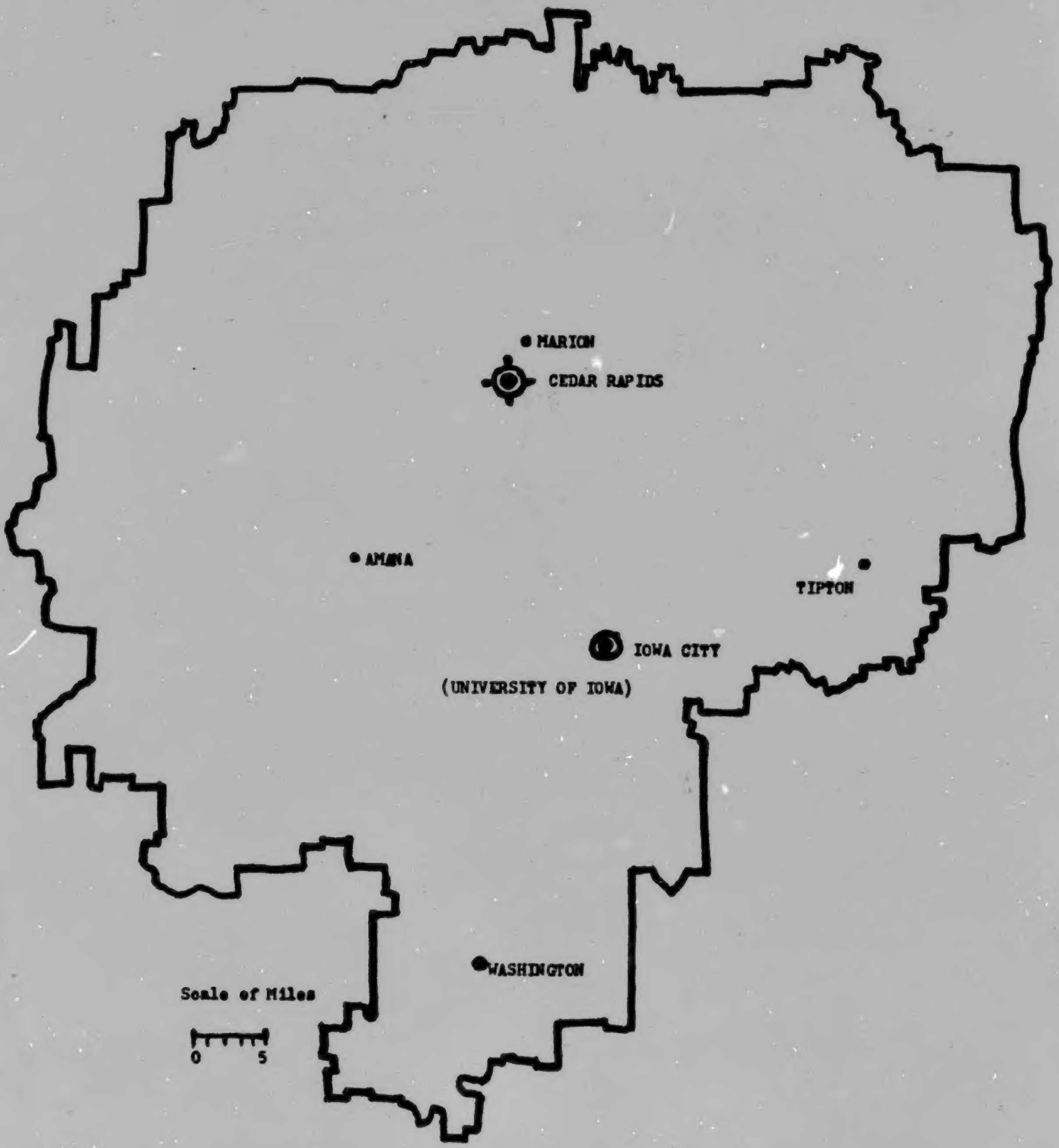
Another approach is to locate the regional center at a local college or university such as one in southwestern Pennsylvania. California State College is the center of this facility. A similar situation exists in western Nebraska where the center is located at Chadron State College. In the two examples stated, as well as others, the location is more than physical, for the institution of higher education is definitely involved in the planning and operation of the center. It is thus that the location is very practical.

Old or non-used school buildings are also used for centers. The unit for the Lincoln, Nebraska School District is such. The entire building is now being used for administrative purposes while the basement is for the multimedia center with its centralized, city-wide services. The multi-media center of the Arch-Diocese of Detroit is located in a modern, but unused, elementary school. One wing is leased to the public schools for special education while the remainder is used for the center (P50).

In Santa Clara County, California, the media service component serves a population area of about one million people. The various school districts maintain their own general media centers with lending collections and production facilities. A film library for the entire county is located in the north portion of San Jose, the largest city and county seat. The building is a commercial type building in a commercial district. The approximately 6 000 square feet is mostly in one large room with offices and utility rooms on the side. Should the film center ever be moved, the building could no doubt be utilized commercially, which is probably a plus factor (P50).

The Area X Regional Center Service Agency of Iowa is located in Cedar Rapids, Iowa, a city of over 100 000 and the largest in the area. A satellite center is to be located at Iowa City, about 25 miles to the south and the location of the University of Iowa. The main center is located in leased facilities in the downtown area of the city, of which about 8 500 square feet is allocated for media services. The second floor houses administrative offices and associated services (I6, 632-651).

A possible weakness in the center located in Cedar Rapids, Iowa, is the lack of expansion area on a horizontal plane. Similarly, the parking situation is awkward, which might decrease the effectiveness


MARION
CEDAR RAPIDS
AMANA
TIPTON
IOWA CITY
(UNIVERSITY OF IOWA)
WASHINGTON
Scale of Miles
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5

FIG. 3. PROPOSED LOCATION OF SERVICE CENTERS FOR REGIONAL EDUCATIONAL SERVICE AGENCY NO. X IN IOWA (I6, 528)

and usability by teachers coming in to use the facilities. A similar situation exists in Kent County, Michigan. The county offices are located in modern buildings in the downtown area of Grand Rapids. Parking is available in the basement of the complex at a price which very easily could discourage the fullest usage. Possibly the decline in downtown business operations could be a lesson for regional service centers. The center must not only be easily accessable, but easily used. Parking must be readily available and be in immediate proximity to the facilities.

As might be expected, the actual square footage required will vary greatly according to the population served as well as to what types of services are being offered. The same is true in regard to the various types of rooms that are needed. The following list is representative of what exists in a composite form:

Administrative services:

1. Offices for administrators
2. Secretarial offices
3. Duplicating room with adjacent supply storage
4. Photo-copying facilities
5. Conference room(s)
6. Reception area
7. Rest rooms, janitor closets and other utility areas
8. Business machines room

Personnel Services:

1. Offices for professionals
2. Office area for secretarial staff

3. Interview rooms
4. Conference room(s)
5. Storage
6. Health facilities, such as screening rooms, examination rooms, waiting room, nursing station, sterilization room, etc.
7. Testing room and associated activities

Media services:

1. Administrative offices
2. Secretarial office space
3. Delivery area, such as loading docks, storage area, dispatcher office, packing room, etc.
4. Graphics room and associated facilities
5. Maintenance facilities, storage, parts storage, tool room
6. Dark room, film developing, supply storage
7. Film library racks, cleaning and inspection area, check-out
8. Audio and video tape recording rooms, studio, control room, transmitter equipment room, program and media preparation area, receiving and unloading area, television teacher's work area and office etc.
9. Professional library area, check-out, storage, office
10. Pre-view rooms, demonstration areas, display areas, etc.
11. Teacher work area, storage, facility and equipment storage
12. Utility rooms, rest rooms
13. Demonstration classroom, meeting rooms, conference areas
14. Cataloging and other technical processing areas for materials in process, storage, repairs, etc.

15. Stack areas for book and non-book materials
16. General work areas for production
17. Ordering and receiving offices and work area (E29, 300-321; I6, 639-649; P50).

Obviously, most centers would not have all of the areas listed here, while others would have special areas not listed, such as the planetarium at Red Oak, Iowa, which is quite unique. The services offered at the service centers fill the local needs of the region, and the rooms in the center would reflect this.

8. Summary and comment

To describe a regional educational service center is difficult. As a whole, they have similar functions, though there are many special purpose educational service centers. However, they vary greatly as to organization and size.

The typical regional center in the Midwest covers several counties, though similar units in the West may cover only one county inasmuch as the counties are usually larger. Intermediate districts, which are the organizational units covered by most regional centers, vary in size in the reorganized districts from 5 000 to a hundred thousand, or more.

In noting the charts it is evident that some local districts are larger than many intermediate districts. One figure is mentioned frequently as a minimum size for a regional center, that of a pupil base of 10 000. Other figures give 30 000 and others up to 50 000. Decentralization figures rather interestingly enough give a district size of 18 000 to 25 000, thus giving some evidence of a common meeting ground for an optimum size.

It is generally accepted that the center should be centrally located. Several authorities suggest a working radius of one hour driving time from the centrally located unit. The needs and local conditions will vary, obviously.

The actual facilities for the center will vary from a desk at which a coordinator directs contract letting and similar cooperative action to a very sophisticated "institution" with studios, laboratories, production rooms, delivery facilities, preview rooms, etc.

Local needs, local fiscal condition, local desires will all be factors in what the regional educational center will be on the one hand, while state policies and organizational structure will dictate what will exist also.

CHAPTER 9

CURRICULAR SERVICES

1. Introductory comments

It is quite apparent that the ultimate purpose of all educational activities, including those of a cooperative or regional nature, is to better serve pupils.

Cooperative and/or regional programs are being utilized to help implement the innovative curricular programs which require multi-media and more extensive resources. Regional educational service centers are typically designed about media services, which are basically serving the curricular and instructional needs of the schools. In the total picture, most of the other services ultimately are services to the pupil in one way or another.

2. Needs of the smaller schools

Quite obviously the smaller schools need about the same general items as the larger schools. The section on educational problems should be considered at this juncture, for obviously a solution is hardly in order if there is no problem. Inasmuch as this paper is considering the smaller school, the smaller districts, the isolated schools, it is necessary to recollect a few of the needs in the curricular field.

Many authorities mention the need for a well-rounded curriculum. It is common knowledge that a majority of these smaller schools just do not know what this is within their halls. Generally they lack the personnel, facilities and equipment. They simply lack the funds needed. Frequently they are not up-to-date on innovative movements let alone active in such programs. Supportive media are lacking and the local patrons all too often have little interest in educational growth. "If it was good enough for our grandparents, it is good enough for us and our children."

Nevertheless pressures are being brought to bear on these schools to produce. Achievement tests and educational assessments are noting deficiencies. Studies are noting weaknesses in collegiate acceptances and graduate studies and of course correlations are being made to early educational efforts. Some parents and pupils are also noting the inferior productions. Mass communications are making the open-minded aware of what is occurring. Many are demanding that the smaller schools come into line.

A Nebraska study gives some indication of the course offerings as they relate to the size of the school district. For instance, schools and school districts with but a few hundred pupils could offer but 25 to 40 courses within the high schools. This number increased proportionately as the numbers grew to the thousands. Lincoln, with approximately 150 000 population was able to offer about 150 courses and Omaha with a population of about 350 000, had about 160 high school courses. The vocational course offerings were proportionate to other course offerings (S13, 20).

Another element mentioned often is that the smaller and poorer districts tend to attract the less qualified personnel which in turn tends to lower the overall quality of the program. Those who are hired stay for a shorter time as they attempt to move up the professional ladder.

Here and there, smaller districts are showing that they can offer a quality program in spite of their smallness. Part of the secret is being able to capitalize on the resources in the area as well as the built-in advantages of a smaller group. It is also observed that various media are being utilized in various ways, thus helping immeasurably.

By cooperating in the process, advances can be made also.

> Small schools need a wider curriculum to meet accreditation requirements. Through the Cooperative, we can get more competent people and reach more students. All the superintendents, of course, are looking for a way to get maximum benefits from minimum funds.
>
> We never would have been able to offer driver education without the Cooperative program. I would like to see us set up to teach physics by telelecture and the Electrowriter (K8, 21-22).

By sharing resources, the smaller schools are enriching their offerings. Multi-media, without doubt, are doing much to enrich the program, but even here the full values are frequently being received through cooperative and/or regional programs.

3. Extension study

Extension work has been proceeding for some years on the collegiate level and in some schools on the graduate level. Approximately 70 colleges and universities in the United States offer course work by correspondence and many others have other forms of extension course work. This work is accredited by regional associations as well as the National University Extension Association or the Canadian Association of Directors of Extension and Summer School. Over 200 000 students enroll annually for either credit or self-enrichment course work. Many institutions allow one, two or even three years of extension work to apply on a bachelor's degree (N32).

Even though this study is in regard to education in the United States, mention should be made of the University of London, Open University (England), and the University of South Africa who offer external degree programs. The later institution offers degree courses in scores of fields. The programs of both institutions are of world-wide repute. The latter university enrolls over 30 000 students, thus is far from being an insignificant institution. The concept has been proven (U12).

In answer to the question, who enrolls for correspondence work, one directory states the following:

> Generally students seek correspondence work for one or more of the following reasons:
> ...Students beginning work or already studying toward a degree may complete some degree requirements by taking appropriate correspondence courses.
> ...Teachers and prospective teachers frequently use correspondence study to continue studying in their field, to work toward a higher degree, or to meet certification requirements.
> ...Many correspondence students study for personal or professional advancement, or simply to explore new interests.
> ...Correspondence study is often used by handicapped students to meet their special educational needs. The University of Georgia and the University of Wisconsin, for example, have placed many of their courses on permanent records for the benefit of blind students. (Study manuals and text materials are also recorded.) Most institutions will adjust normal procedures to accommodate handicapped students.

...Correspondence study enables many people to work toward occupational advancement. A number of colleges offer certificate programs in such varied vocational areas as Banking, Electrical Technology, Engineering, Math and Science, Highway Engineering, C.P.A. Review, Insurance, Marine and Diesel Power Plant Technology, Real Estate, etc.

...Frequently college students use correspondence study to complete their studies more rapidly or to make up deficiencies.

...Isolated persons, not being near libraries or colleges often find they can overcome this handicap through correspondence study (N32, vii-viii).

Inasmuch as the objective of this paper is to find ways and means of improving the lot of the smaller and isolated school through cooperative and regional programs, the extension work concept is a virtual must. Though the programs are not usually operated via a regional educational service center as such, yet in a sense the program is cooperative in many avenues. In addition, many of the approaches being utilized by extension schools have application to the regional programs.

Most of what has been said so far regarding extension schools has been collegiate. The Universities of Illinois, Kansas and Nebraska will allow high school seniors who maintain a satisfactory average through their junior year, to take course work on college level with college credit. This is done through the early admissions plan. Similar programs are available as advanced placement programs in residential situations (N32, xiii; P20, 12).

Some of these institutions offer work on the secondary and elementary level. Two of the largest are the University of Nebraska and the Home Study Institute, the extension division for the international Seventh-day Adventist school system. The latter institution is located in Washington D.C. (H24).

An interesting application of extension work is found in the Karns City High School in Pennsylvania where for the past 15 years it has been possible to earn credit toward graduation by the taking of correspondence work. They have had as many as 25 per cent of the student body taking courses in this fashion. A maximum of two courses per person per year is allowed with a half Carnegie unit each. The first course is free to the pupil while he is charged for the second.

These courses are purchased from the University of Nebraska. Among the popular courses have been: auto mechanics, radio service, aeronautics, world geography, photography, conservation, farm tractors, and similar courses not normally found in the curriculum of a small high school. The school officials have felt that the program has been worthwhile as a supplement and positive in general benefits (S27, 34).

This and similar cases would seem to give indication of certain values to be obtained through cooperating with a university in this form of enrichment.

The Correspondence Department of the University of Missouri is now incorporating audiovisual items in their courses. For slides and filmstrips, they rent out an inexpensive pocket projector that sells for approximately $25. A cassette playback only or regular recorder, selling for $15 to $40 each, is used for the audio portions of the lessons.

Packaging for this equipment is accomplished by utilizing a vinyl camera case with four inches of polyurethane padding about it. In quantities of 50, these were purchased for about seven dollars each. The entire unit is then packaged in a cardboard box and then shipped to the student.

At the university offices, professors have access to a camera copy stand for making visuals and tape recording equipment for the production of the audio portions of the lesson. The application of this technique to the regional educational service center and its member schools in varying forms is a distinct possibility (P9, 23, 24).

The entire idea behind the modern regional educational service center is "Service." While in most cases there is a facility with media paraphenalia, offices, packing rooms, etc., in others the agency concept is emphasized and the regional office is a liaison unit obtaining the services from where it can. Where the regional center is not actually operating an extension service per se, it no doubt can act as an intermediary in obtaining proper courses, or it might act as coordinator of such a program. This is a proper function of centers also.

4. Pre-school education

It almost goes without saying that pre-school education benefits from many aspects of the regional center's offerings, such as the media production and distribution programs, administrative services, consultancy services, pupil personnel services such as special education and health service and numerous other benefits. Yet, the actual pre-school program per se can be and is, in some instances, a cooperative program.

One example of a day-care facility that exists primarily because of cooperative action, is the Twin Cities Day Care Center. The principles underlying its existence very possibly have significance to larger programs. This center is located just south of the downtown area of Benton Harbor, Michigan, a city that has undergone socioeconomic decline. The facility is housed in modern, planned quarters with playground apparatus and general equipment needed for this type of operation.

ARIC (Area Resources Improvement Council, Inc.) was formed in 1967 by a group of industrial and business men of the Twin Cities of St. Joseph and Benton Harbor for the purpose of bringing about community improvements. One of these projects was the operation of the Day Care Center, a basic purpose of which was to make it possible for working mothers to have adequate child care of the pre-schooler, as well as early childhood education opportunities.

Private contributions have aided in the building of the facilities. Operating funds have been from federal sources, state funds, endowments as well as contributions. The financial backing has been from all important categories of funding, thus representing a cooperative fiscal arrangement. It has been noted that where the funding is of such varied backing, the chances of the institution failing are less than were the funds rather heavy, or even singularly, from one source. This has been noted in the literature regarding various institutional backgrounds.

During 1970-71 the Day Care Center was operated under contract by Andrews University. The director was a doctoral candidate in the field of education, thus giving professional substance to its direction. In addition a committee at the university had membership from the various disciplines, such as home economics, psychology, nursing and teaching materials to aid in the program. Again, a cooperative approach was utilized in its operation.

A rather unique type of pre-school education is being used in the Appalachian Mountains of eastern United States. One of these programs covers ten school districts of eastern Kentucky, which is a basically poor area. There are three major phases to this early childhood education project which is centered in Charleston, West Virginia. There is little room for frills for each dollar must give just return on the investment, thus what Appalachia is doing must have relevancy in the light of this paper.

One of the chief facets of this program is instructional television. This approach has not been without its problems for the signals are difficult to receive in the deep vallies. By the use of diverters, it is hoped to solve the problem and thus the children scattered through the wild mountain country can receive their lessons.

The daily 30-minute program has a much smaller budget than Sesame Street, an urban broadcast out of New York, but yet it is making a large impact on the area. Seventy-five per cent of the potential listening audience of the area listen to it, which is much better than Captain Kangaroo, another nationally known telecast. One possible reason is that this program fills such a gap and additionally, there is follow-up activity via paraprofessionals and a mobile unit.

During each week a paraprofessional worker visits each home for a half-hour. This person explains the following week's program and assists the mother, who is considered a most important part of the teaching program. She also provides information from the Curriculum Materials Team, as well as activities and games. The paraprofessional also helps to motivate and obtain feedback on the program.

The child has the advantage of a group program when the mobile unit makes its weekly visit of one and a half hours. Ten to 14 children are assisted by a professional teacher and a teaching aide. The mobile units are stocked with appropriate learning materials.

It is interesting to note that where the conventional kindergarten of five-year olds costs West Virginia $496,54 ($496.54) annually, the Appalachia Educational Laboratory (A regional organization) program costs $197,85 ($197.85) and reaches the three- and four-year olds as a bonus (T15, 28).

Does this approach work? The initial program involved 400 children and it was found that the youngsters were progressing twice as fast as those not involved (K8, 21; R5; A38; T15).

5. In-service education

A considerable proportion of the in-service programs in existence are cooperative in one way or another. In some instances the local schools and school districts cooperatively offer in-service programs through collegiate institutions. Some programs are entirely within the intermediate district, utilizing local personnel. In still other situations telecommunications are put into play, either as the chief component of the program or in conjunction with another technique.

Cooperative programs between local school districts or intermediate districts and institutions of higher learning are rather common. With this arrangement, the following in-service functions have been utilized:

act as clearinghouses on research
assist in use of technology
offer correspondence work
assist in personnel practices
assist in full use of facilities
carry on experiments
provide workshops, seminars
provide extension classes
assist in guidance techniques

The list could easily be lengthened, for the college can be of much assistance in the in-service improvement of instruction and of the curriculum as well as in pupil personnel services and administration.

> By cooperating with the college of education of the state university, the Council (study) will have access to university personnel, research data, and library material. Graduate students will be encouraged to conduct studies and research in member systems when requested by the local district. The county superintendent of schools will provide personnel, facilities, and clerical assistance. Local administrators and their faculties comprise a body of professional people with high potential for cooperative action. Experience has shown that personnel from business and industry are available and willing to work with educators when their services are requested (All, 136).

The above items are either directly in-service in nature or indirectly related. In either case, cooperation has been achieved in the solution of educational problems.

The actual programs that have been carried out are varied. The Metropolitan School Study Council is made up of 70 school districts in the New York City area and it works with Teachers College at Columbia University located on Manhattan.

The New England School Development Council has its headquarters at Harvard University and is unique in that it serves six states. It acts as a clearninghouse for "information pertaining to the organization and operation of schools" (All, 137). This would function both as an administrative service and as administrative in-service education.

An example of another approach to in-service education and general information for administrators as well as school board members is found in the Oregon School Study Council. It is sponsored by the member school districts and the University of Oregon at Eugene. Funding is 50 per cent from the districts, 50 per cent from the University. The district funding is based on 10¢ per pupil, A.D.A. (average daily attendance) with no school paying less than $50 and none over $250 annually (All, 136-137).

Some of these programs are designed for certain subject areas. Fairfield University has cooperated with the four districts of Bridgeport, Fairfield, Statford and Trumbull, Connecticut, in a cooperative college-school science program which has been sponsored by the National Science Foundation. The six-week course for the up-grading of science teaching has been so successful that other districts are asking for assistance (K11, 493-496).

Another case is that of the Granite School District of Salt Lake County, Utah, and their cooperative in-service mathematics program which is offered with the University of Utah. Each of the 80 teachers obtains five quarter-hours credit. The classes are taught in the district itself, thus teachers do not have to commute to the University campus in east Salt Lake City. The cost to the district is less than $100 per teacher (C28, 449-451). Of a similar nature are the numerous extension classes that are taught on "demand" by state universities, such as the University of California, the University of Nebraska and a host of others.

An example of short- term cooperation is that of the "Training Educational Teams to Diagnose and Reduce Language Disabilities in Young Children." It was funded by the U.S. Office of Education and run primarily by personnel from Sacramento County, California. One of the staff members was from Chico State College, while presentations were made by faculty from Sacramento State College also. Credit was given by the latter college. Within the program description is found a telling philosophy: "Focus upon teammanship by other consultants. . ." (M18, 1).

Another approach is through the intermediate school district organization. Smaller school systems can obtain services in in-service education that would not normally be available other than within a large district.

> Through pooling personnel and fiscal resources, it develops sufficient strength at the intermediate level to support strong programs. The very fact that the intermediate district, by its nature, must lead rather than direct creates a situation

> in which programs must be good. If they are not really worthwhile, they are ignored and may even be treated with disdain by local district personnel (All, 179).

During the three years of operation of the regional center in Salisbury, Maryland, 14 166 educators have made use of the training provided. This is the equivalent of each teacher in the area attending over four training sessions per year. These sessions are held in various schools, at the T.V. station, at Salisbury State College as well as at the educational service center itself (E14, 31, 35).

Many of the centers offer credit for certification, renewals of certification, college and graduate credit. Some centers offer "increment credit" which is the equivalent of college credit for salary increments. Of course many of the classes are but one session units designed for specific needs.

The microteaching program has been used in some areas. One form of this, the minicourse, has been developed by the Far West Laboratory for Educational Research and Development, itself a cooperative endeavor. This program has been so successful that one-third of the budget is allocated to this form of in-service teacher improvement in a southeastern South Dakota regional center. As of this writing, eight secondary schools, six kindergartens and 47 elementary schools have used the program in this region (S40).

> Costs for this type of training would have been much greater if schools had tried to implement it individually. . . . But through the cooperative use of materials, we have been able to serve a large percentage of all southeastern schools at comparatively low costs (S40, 8).

A different point of view in cooperative in-service programs is suggested by the New York BOCES center in suburban Buffalo. They feel that they have four major advantages over the university approach.

1. Workshops are organized in prompt response to expressed needs at any time during the year.
2. Consultants with recent experience and knowledge of the workshop topic are employed on a fee basis.
3. Teacher incentive is supplied by the awarding of in-service salary credit.
4. Unique facilities and services are available for the workshop and follow-up periods (S28, 144).

Those who have been on college or university faculties are well aware of the executive machinery and long-range planning for any project. Therefore the statement above has real substance and is a pitfall which the regional educational service center should consider.

The second advantage should be considered in the light of collegiate faculties and their possible lack of contact with the realities of practical educational life. It is very possible, however, to hire a college professor who qualifies, if the "red-tape" does not discourage action.

The third item of salary incentive can be given in most any environment that the district chooses, including university credit courses. The accounting procedure for increments is up to the administration and could include study tours to Tanzania if desired.

Without doubt the regional educational service center might have better facilities for certain aspects of an in-service program than a college. Scheduling would probably be easier in the center for follow-up programs, though all situations would differ according to local characteristics.

For whatever the method of carrying out an in-service program, it has been found desirable to cooperate with other groups in achieving the best possible program. Frequently several districts can share in transportation and honorarium expenses for well-known educators, whereas on their own it would not be fiscally feasible.

6. Outdoor education

Frequently outdoor education programs are cooperative ventures between school districts, between schools and park departments as well as similar arrangements. Since 1954 the public schools of Washington State have been holding classes in the state parks. These have involved students from the fourth grade through high school. They have studied ecology, environment, wildlife and outdoor skills.

Until recently the classwork was done in the early fall and late spring, but currently they are winterizing their camps so that they may be able to accommodate 60 000 young folks in week-long programs (S54, 20).

School camping and outdoor education frequently go together. San Diego County has been a leader in this field. The Seventh-day Adventist schools in Santa Cruz and Mountain View, California for some years cooperated in a school camping program in the Santa Cruz Mountains (P6, 8). It is noted that often outdoor education programs are either carried on by large districts, such as San Diego County, or by cooperative ventures of one sort or another.

School camps have been used in Tyler, Texas and in Battle Creek, Michigan. The latter operates a camp for 15 to 20 weeks out of the year, then contracts it out to eight to ten other districts. Each district pays a proportionate part of the expenses. Battle Creek provides a permanent staff at Clear Lake Camp (S35, 105-106).

Many school districts use private camps, state recreational areas or university owned facilities. Thirty-one southern Illinois counties have representation on the Council of 100 which gives guidance to the program at the Southern Illinois University's 500 acre camp which is used for outdoor education for the university as well as other schools in the area (S35, 108).

Northern Illinois University, Boston University and Indiana University have similar facilities. Most of these facilities are used by many schools in the area, even those across state boundaries. Within Michigan, more than half of the school districts have used state owned facilities (M17, 112).

Cooperation in the operation of outdoor education and school camping facilities might come via several directions. Mand says,

> Many school districts incorporating camping as part of the curriculum purchase a camp facility and send youngsters from the district schools to camp at scheduled times. A permanent resident camp staff operates the camp and coordinates their efforts with the classroom teacher. In other situations where a school does not own a camp but does have a director of a school laboratory, this person assumes the direction of the camping experience (M13, 137).

In many parts of the country, the schools rent a local Y.M.C.A. or Boy Scout camp during the year. However, more and more the schools are becoming community institutions in a fuller sense and the school is no longer a nine to three operation. "The school district will have to purchase a site and develop facilities for this program"

(M13, 171), for the rented camps are needed during the summer months. Through the further extension of the school program into other channels, it is hoped to better society's problems as a whole.

The bettering of this phase of education may be made by the better use of already existing resources, such as forest preserves as are found in Cook County, Illinois, the Regional Parks of the East Bay in California and many others. Many of these parks have zoos, naturalists, collections, herbariums, etc.

In order for the outdoor education and school camping experience to be really meaningful, the pupils must get out of the city environs and actually participate in the outdoors. This obviously requires rather extensive facilities which cannot, under normal circumstances, be nurtured and maintained by a small organization. It logically takes a relatively large population base from a strictly financial standpoint.

Additionally it must be remembered that a given class or school will no doubt be using the facilities and staff for a relatively limited portion of the year. In this case, if a small group could handle the operation, would it really be full utilization of an expensive facility? In these days of vastly increasing educational costs all facilities must be utilized to their fullest. All personnel must be employed as fully as possible within their discipline.

Another consideration is that of the availability of trained personnel in this field which appears to be growing. With the big emphasis at this date on education in the environmental sciences, the outdoor laboratory will no doubt come more into prominence. There are few universities training teachers in this field per se, thus cooperative usage is most obviously the answer in general terms. Again, how many schools could support a teacher in this field?

As the literature is surveyed, it is quite common to find the entire program to be of a cooperative nature, for it is the most logical approach in the mind of a high percentage of administrators. This would be true from the viewpoint of curriculum and administration.

The classroom without walls concept fits into this type of a program also, as well as the individualized curriculum. The book as the mainstay of education appears to be passing. Multimedia and realia are finding their way into the vocabulary and action of the school.

7. Vocational education and industrial arts education

One of the areas in which the regional concept can make a significant contribution is in the area of vocational education. Within New York State, much instruction is being given within the BOCES (Board of Cooperative Educational Services) unit. Upper Erie County, for instance, has two centers, one at Harkness Center and the other at the Potter Road Center. These two centers serve an area of about 1 000 square miles and 80 000 pupils. The vocational offerings are in 16 different fields, plus several multi-occupational programs in buildings and grounds maintenance, assembly and benchwork, food service, mail-room operation and service station management (C20, 47).

Three school districts in Rhode Island are cooperating in the running of a regional vocational-technical facility. It will be serving 300 pupils in the 11th and 12th grades. A comprehensive high school will adjoin the facility so that these pupils may take the required academic classes. It will also be close to a junior college and a county hospital, both of which will be involved with the training program (W6, 5-6).

There are 32 state-operated Area Vocational-Technical Schools in Louisiana. The emphasis is not on "trade school," but rather on tomorrow's needs. Industrial leaders work along with the educators in the development of the programs (L24).

Some areas are attempting to solve their dilemma of education, particularly in the vocational-technical field, by the establishment of residential schools with boarding facilities. Some mountain communities in the West have used this approach (G48, 53).

Concerted Services in Training and Education is an approach being used in five states to coordinate government services with training programs. A coordinator is used to stimulate change and work among individuals, groups and agencies (G48, 23).

With the large investment in equipment and personnel resources, many have realized the need to consolidate their holdings. A small school or school district just cannot offer that which is needed in this fast-moving economy. Cooperative ventures are bringing quality vocational, technical and industrial arts programs to smaller and less blessed communities. Most commentators agree that there are disadvantages but most also agree that the advantages out-weigh the other by a good margin. The small district just does not have the facilities, the equipment nor the personnel to do it on their own.

The need for cooperative effort in the vocational-technical education field is seen somewhat in the fact that some states, such as Iowa, have set up Area Community College and Area Vocational-Technical Districts, which are mutli-county in extent (I5, 370-381). Even a single county is not considered of sufficient size, under many circumstances, to handle such a program as needed in the vocational-technical field.

Without doubt this field is one of the most expensive on a per-pupil basis of any subject area. Because of this it is often slighted in the smaller schools and school districts, yet it must be realized that a large percentage of the pupils will be going into the trades and not into professions. They have just as much a right to an education as the others.

The chapter on Mobile services discusses the mobile unit in this area. Many facets of the program can be offered utilizing this method (T25; B60, 74-75).

8. Physical education

In most situations physical education can be adequately offered by the local schools. Consolidation, in most areas, has made it possible for schools to be large enough to have teams in competitive sports and to carry on other recreational activities. Of course there are still schools in which it is difficult to muster enough boys and girls combined, to have a ball team.

Inter-mural sports are common clear across the country. The school busses are put into much use over week-ends transporting the teams and boosters. Cooperative action is utilized in the operation of the busses many times. It is obvious that a league is actually a regional operation of cooperating schools.

Multiple usage of gymnasium facilities is practised in some areas. This would be cooperation on a small base, in a limited area, though bussing is often employed. Other specialized facilities are often used, such as swimming pools, stadiums, ball fields and tracks, in a cooperative manner.

One of the advantages offered for the educational part is the fuller usage of these very costly facilities (E6; L14, 44-46). With the current mass usage of the bus to bring about desegregation it is just as feasible to use it for fuller facility utilization, if that be the thinking of the people.

Special physical educational fields are often advisable within the curriculum, such as gymnastics or some less common sport. Personnel can cover several schools in a circuit and be directed from a regional center or operate from that center. In one area 28 physical education aides working in elementary schools are co-ordinated and directed by one P.E. supervisor (D6, 2).

9. Driver education

Driver education can be relatively expensive inasmuch as one or more automobiles are involved, as well as simulation units and other audiovisual equipment very possibly. The degree of sophistication will vary, but nonetheless the subject field has certain fixed costs.

This field has been a luxury for many schools of eastern Kentucky, that is, until they cooperated in their offerings. Prior to cooperative programs but one school offered the course and that was weak. After one year of operation they have now given instruction to 1 000 juniors and seniors for $75 000, which has surprised many critics. This was done with six teachers and much audiovisual equipment (K8, 19-20).

Most will agree that cooperation will not solve all problems; however, in a three-county area of Tennessee all 16-year olds can now have driver education where only 40 per cent could prior to the cooperative program. In addition this training program is being done at two-thirds of the prior cost (R8).

In some areas mobile classrooms have been used and of course the prime unit, the automobile, is mobile, thus cooperative programs are quite feasible.

10. Music and art

The fine arts are another one of the fields that tend to be short-changed in the smaller school districts as well as those that are isolated. In-service work is given to teachers in some places, thus enhancing the program.

> Vermillion Parish (Louisiana) has established a teacher-oriented media center with visual arts specialists to assist the teachers. The State Department of Education in co-operation with the Louisiana Council for Music and Performing Arts has

established an extensive Arts Loan Slide Library for the teachers of the state. The Department has a permanent collection of children's original art work in grades 1-12 (L15, 1, 6).

Within the educational service center located in Macon, Georgia, there is an Art Center which serves Bibb County. The following five services are aimed at Target Area Schools and Supplemental Area Schools:

1. Workshops for elementary and secondary teachers, as well as summer programs for children
2. Loan of the following items:
    a. sculpture reproductions
    b. sculpture originals
    c. unframed reproductions of paintings
    d. framed original etchings, lithos, prints
    e. professional art publications
    f. art films, strips, slides
3. Rotating art exhibit--six framed reproductions per case with background material on a regular three-week schedule
4. Art visits to the center, as well as work areas for ceramics, etc.
5. Available art consultant (H1, 2-3).

Some centers maintain a collection of sheet music, orchestral and band scores as well as musical instruments. Many of them have recordings and tapes. San Diego, California, has over 1 500 tapes as well as a similar number of disc recordings (K18, 8). Many centers have dubbing service. Similar services are available on a larger service area basis, such as the University of Michigan and the

National Audio Tape Library at the University of Colorado, both of which are non-profit, though the collections are more general educational rather than musical per se.

Cleveland, Ohio has done considerable work in the field of the fine arts. Among the enrichment materials and services available to the children of this city via the Supplementary Education Center, is an array of music studies and programs. Talented youngsters may obtain free lessons each week. These classes are taught by performers from the Cleveland Philharmonic, Akron Symphony and other educational and cultural groups. The Suzuki violin instruction is offered to young people. Voice lessons, ensemble, music survey, the Orff Shculwek classes, composition etc. are available to both elementary and secondary pupils. Student teachers also have opportunity to work with beginners.

In addition 470 concerts have been given before 80 000 pupils at school assemblies. This is a joint venture of the schools and the Young Audiences of Greater Cleveland. Many other avenues have been made available through the center, including in-service courses to teachers in the teaching of creative music as well programmed course work development. So far, 130 000 pupils have been assisted through the four major music programs of the center (W3, 41ff).

There are several rather promising cooperative programs being developed in Louisiana and neighboring states. Various groups have sponsored opera workshops, music career workshops, reperatory theater, ballet etc.

> A Tensas Fine Arts Center has been proposed by the Tensas Area Redevelopment Economic Association, Inc. in cooperation with the Department (of Education), the Council (Louisiana Council for Music and Performing Arts) and Louisiana Polytechnical Institute. The camp would be dedicated to a comprehensive study of the fine classical and modern music, art, dance and drama. Formal instruction from highly qualified teachers and performing artists would be the by-word at the camp (L25, 6-7).

Another regional group is the Gulf States Art Council which was formed for the purpose of "presenting a unified effort on projects that are of common interest to each member" (L25, 7). The following states are involved in this effort: Texas, Louisiana, Mississippi, Alabama, Georgia, Florida and Arkansas (L25, 7).

Regional programs in the fine arts can be quite beneficial from several aspects. Inasmuch as various specialties are involved in this broad area, such as fine art, commercial art, sculpturing, crafts, graphics, piano music, orchestral and band music, choral music and voice, as well as other phases not enumerated, it is quite evident that few schools would have the pupil base for ample instruction. Not all of these fields would have to be represented, obviously; however, few would argue that what is offered, all too often, is just not sufficient.

The media component is vital to the success of this field also, by providing production services and library materials in multimedia formats.

11. Reading

If anything is taught in any school, even the one-room "little red school house," it is reading. The problem comes with the poor readers, the ones with various special education factors that upset the "normal" growth pattern. Even if the typical classroom teacher had the skills to deal with this issue, she would find it nigh impossible to allocate the time required for this pupil(s). In larger schools, teachers are often available to assist with these problem readers, or aides might be enlisted for those who are just slow and need additional encouragement and not specialized diagnostic treatment.

Several approaches are utilized to aid these pupils. One such program is offered as a regional program by the Omaha (Nebraska) Public Schools at the Central Reading Clinic. It is operated as a joint venture by the Omaha Public Schools and Educational Service Unit Number Three.

The service includes diagnosis, actual remediation instruction and other avenues. Instruction is usually based on a released time program of two 50 minute individual sessions per week at the clinic in Omaha. Here the central city is involved with its suburban and surrounding rural communities in the solution of a common educational problem.

A professional library is available to teachers. Along with the books, monographs and literature, displays are offered. Case conferences are available for the diagnosis and treatment of problem youngsters in which the homeroom teacher is present to help carry out the remedial program. Seminars and consultation on similar programs and their establishment are offered at the Central Reading Clinic (K3, 29, 30).

The travel of the reading instructor to the various schools is a very common practice in many areas. The regional educational service center provides this as a service. For instance 29 of the New York BOCES centers used itinerant reading teachers during the 1970-1971 school year (N26, 1-2).

Another practice in many areas is the use of the mobile reading clinic or laboratory. This unit is staffed with one or more specialists in reading and is equipped with appropriate reading devices and possibly diagnostic equipment such as audiometers and telebinoculars. Similar special education units are in service also, in which reading may or may not be a component part of the service (T25; M19; W38, 7-8).

A common practice in regional educational service centers across the country is the provision of consultants in various fields, which often includes a reading consultant who is available to assist the classroom teacher with his or her questions.

Without doubt most teachers would verify that one of the most common causes of generally poor scholarship is poor reading ability. Yet the classroom teacher or even the local school has difficulty in actually helping these youngsters. Proper diagnostic equipment is expensive and would most likely find limited usage in any given school. Even a simplified screening audiometer or telebinocular costs hundreds of dollars. Special tachistoscopic devices and other teaching aids cost hundreds of dollars each. Cooperative action is frequently the only avenue of solution.

12. Science

Science teaching with its accompanying equipment and facilities is among the most expensive of the subject fields. It is also one of the most important considering its niche in modern life.

Many things can be done where there is the money to hire the personnel and to acquire the media and facilities; however, it is not always practical, thus careful planning is needed. Regional programs have come to the aid, not only in sparsely populated areas but in populated metropolitan hubs such as Los Angeles.

The Los Angeles City Schools operate nine Science Centers in various portions of the city. Incidentally Los Angeles is the largest city in the United States in regards to area, which is 457.9 square miles giving it some characteristics of a region (S4, 467).

Each of the centers has the following personnel available to provide advice and assistance: a science specialist, a science teacher, nurseryman, field gardener and possibly a clerk.

The following services are available:

1. science lessons
2. mobile units come to schools
3. individual assistance
4. in-service projects
5. orientation of teachers
6. teaching materials
7. science field trips to arboretum, planetarium, main science center, etc.
8. resource materials

9. assistance in school gardens
10. display of pupil projects
11. meeting facilities

Teachers may obtain materials on loan as well as receive consumable items. Among the loan materials are: flats, magnifiers, microscopes, plant science kits, potted citrus plants, incubators, brooders, live animals such as ducks, rabbits, turtles, goats and ponies. In addition they have collections of shells, rocks, and similar natural-history items available.

Among consumable items available are: various displays of grain, animal feeds, seeds, bulbs, cuttings, earthworms, eggs, insects, snails, bottled pond water, sand, soil samples etc.

Supplementary library books are available. "The total science program is based upon the cooperative efforts of teachers, specialists, supervisors, administrators and other personnel" (L30, iii).

The Omaha Suburban Area Council of the Schools Science Center, known as OSACS, is a cooperative venture to carry out three main objectives:

1. To develop an "innovative and exemplary education science center." It is to develop and provide in-service and pre-service assistance to teachers.
2. To make available modern science educational equipment, realia, specimens, kits, displays, etc. These are to be used at the center as well as checked out on short-term basis.

3. To provide individualized instruction and laboratory experience to students interested in science.

During the first two years it was funded by ESEA, Title 111. The third year federal aid will be for staff and services only and the fourth and subsequent years it will be funded locally (K5, 23-24).

A rather unique type of regional educational center is the Golden Valley Environmental Science Center, one of three in Minnesota. The center serves 34 school districts of the state. Their approach is "socio-ecological--after all, human activity affects the environment and social science and environmental science really cannot be separated," says the director (S19, 4).

The two principal approaches to service are through teacher in-service education and the production of science guides, nearly sixty of which have been produced to date. Most of these are on the elementary level. The outcomes of the center have been rather extensive, involving the United States Bureau of Sport Fisheries, site surveys for many municipalities as well as commercial land developers (S19, 4).

The Long Lake Conservation Center is similar to the above unit and is located in Aitkin, Minnesota. Course work is offered through two state colleges in the field of ecology, forestry practices, watersheds and wildlife. Cooperative effort is two-fold. Not only is the center itself cooperative in its base, but its position of field education for the two colleges and the cooperative credit offering (S18, 7).

The vast number of sophisticated and exotic science fields make it virtually impossible for a small educational unit to offer a rich curriculum. A wide retinue of personnel is required. Much expensive equipment and involved facilities are necessary. Media requirements are vast also. Consolidation and cooperative action have helped to bridge this gap between what is and what should be. Mobile units, regional field laboratories, itinerant teachers, consultants and media centers, all of which a regional center can support and direct, have been part of the answer.

13. Aerospace science

As important as aerospace is to our society, even large school districts usually do not have aerospace programs in their curriculum. The costs of such education are exceedingly high, depending upon the sophistication. Ground school would be relatively reasonable whereas flight training would be rather high. Nevertheless course work is being offered in schools here and there.

In southwestern Pennsylvania they have cooperatively run 25 different special projects and meetings. In 1969 they had one project in Aerospace science in which 30 students were offered course work in astronomy, space biology, rocketry, telemetry, communications and principles of flight. This was done in cooperation with the local Educational Development Center, the Henry C. Frick Educational Commission of Pittsburgh and NASA (National Aerospace Administration) and the Goddard Space Flight Center of Greenbelt, Maryland. Pupils came from 17 school districts and the non-public school in the area (K15, 8).

The Lincoln Aerospace Curriculum Development Project is a cooperative program of the Federal Government and the participating school districts in and around Lincoln, Nebraska. They developed a special materials library for this field of study, including various types of media. A mobile unit was developed with the driver being a consultant in aerospace education, as well as guest teacher in classrooms. Various curricular materials were developed which are being used about the nation. Students were assisted in the knowledge of the field by field trips to airports, actual airplace flights as well as direct help via the mobile unit with its consultant and the materials carried within the unit (K5, 17-18).

It is noted that in many fields, and especially aerospace science, cooperation is needed not only among the schools and districts, but among other agencies. Much instructional assistance is available from groups such as the Civil Air Patrol and the Air Explorers.

14. Summary comment

Curricular services are offered from several aspects. Consultancy service is offered in most all subject matter fields. The consultant may be a field person who works with the teachers on the location or be available primarily in the office and work in the field upon demand. The role that has commonly been referred to as "supervisor" is ceasing to be a common position as the concept of service to professional peers comes more into being.

Itinerant teachers are available in some areas. Though the substitute teacher has been available in many areas for some time, the itinerant teacher is on a regular schedule, usually assisting in fields in which assistance is not sufficient locally. In New York State these fields are: art, driver education, foreign languages, industrial arts, library, music, physical education and reading (N26).

Mobile educational services are offered in many areas for certain subject fields, such as electronics, special education, reading laboratories, career education or other relatively specialized areas in which local schools are deficient or totally lacking. Whereas the itinerant teacher goes to the facilities, a mobile unit brings the facilities and instructor to the pupils.

In still other situations, the facilities, equipment and personnel to interpret and teach are in a central area as part of a regional instructional program. This is found in such institutions as the area vocational centers in Iowa, New York, Louisiana or Michigan. In other instances there may be specific facilities and curricular offerings along with accompanying professionals, such as the conservation programs in Minnesota or outdoor education and school camping facilities in San Diego or Battle Creek.

In many regional educational service centers, media services are considered as part of the curriculum area for they offer enrichment and support for this field. It is quite evident that each of these facets is actually multi-faceted inasmuch as it has so many interactions and associated cooperative processes.

Regional educational service centers are offering services that are frequently not available in local schools or school districts. In other cases their work is supplementary or complementary in essence. The curriculum is enriched by provision of extra facilities, personnel, equipment or media as well as co-ordinating organizational procedures by which that which exists is better utilized by cooperative action.

CHAPTER 10

ADMINISTRATIVE SERVICES

1. Introductory comments

Though of necessity certain administrative items are always on the local school campus, certain other functions do not fit there, either for financial reasons, lack of personnel, legal statute or otherwise. Even where the financial picture is sound it is not always good stewardship to tie-up funds in a service which is seldom used, good and worthwhile as it is at certain times. Thus certain services are to be found in partnership programs, so as to share the costs and skills required.

In most lists of services being offered by comprehensive educational service centers, administrative services are available, though they obviously vary from place to place according to needs.

2. Building and site services

Some states offer building and site services, such as in Nebraska where there is a state office which gives limited consultant service. California requires that plans be checked by the state office, in most cases. In other situations the intermediate or district office cares for these needs.

Various private concerns are specialists in the field of educational specification writing and the accompanying specialties of surveys, bond issues, etc. The Educational Facility Laboratory at Stanford University is well-known in the West for its work in this field. Some architectural firms specialize in school architecture, school library construction, auditorium construction, etc.

A cooperative approach to school construction is being used in California:

> The School Construction Systems Development Project (SCSD) is a practical test of a method of building better schools more rapidly and economically. In the project a group of California school districts built six schools and had five others in construction at the end of 1966, with two other projects scheduled to go to bid in 1967. Altogether the 11 schools built or under construction include about 1.4 million square feet of space and have an estimated cost of $25 million (E8, 9).

All too often in order to cut costs of schools, standardized plans have been used which lacked flexibility and adjustments to local conditions. The SCSD Project is attempting to gain economies and efficiency without this standardization. "Basically it is a means of using the efficiency of modern industrial mass production to construct schools" (E8, 9).

The SCSD staff acted as advisers to 13 cooperating school districts in California. In essence the organization has asked industry to develop compatible units so as to evolve a systems approach to building construction. In practice the architects have placed about 50 per cent of the building within the scope of these "systems designed" units. Buildings go up faster and more economically (E8).

Regional Educational Service Centers also act as clearinghouses of information on building and site services. Services may also be contracted with a commercial firm or with a still larger cooperative in order to have full time professional assistance which would not be practical in a smaller organization.

3. Translating services

This may not be a common, everyday necessity; however, it is in just uncommon items that there comes the necessity of working with others. The concept briefly outlined here, may have applications of value.

"The National Translations Center is the principal U.S. depository and information center for unpublished translations. . ." (N14, 1). The center has been of much value, in particular to the scientific community. The center is a cooperative program, aiming to carry out the following three functions:

1. to eliminate costly duplication of translations effort, thus freeing funds for translating new material;
2. to disseminate information on available translations; and
3. to provide copies of translations on file or to refer inquiries to other known sources of supply (N14, 1).

As our society becomes more mature, there is little doubt but that the literature of other nations will be more and more used, thus necessitating translations. Coordination of effort will need to be made if funds are to be wisely used.

4. Research services

Some feel that education has been remiss in not devoting more effort to research. Less than one per cent of the budget is allocated to research whereas during 1966 the electrical and communication field expended 3.4 per cent of their net sales and International Business Machines invested about 5 per cent on research (C61, 29).

The Committee on Economic Development brings out that the schools do not have a "County Agriculture Agent" to disseminate information regarding the field. Similarly the medical arts promulgate research findings in hospitals. Educators do not have these services in this form.

> There is need for more effective techniques for the dissemination and practical implementation of research findings. Unless the school systems are staffed with persons capable of actually doing something with research findings, their value will be entirely lost (C61, 29).

Many regional educational service centers are doing something about this situation. Obviously most schools do not have the personnel to carry on a research program, and not too many more have personnel with the time or possible background to interpret the findings.

NORCAL (the Northern California Cooperative Research Project on Student Attrition) is a cooperative program which grew out of the California Junior College Association and which is now funded by 22 junior colleges and the federal government on a matching basis. "The experience of NORCAL has given real meaning to the concept of cooperative research" (M10, 28). The funding, search of literature, testing etc. have been done on a cooperative basis. Several organizations have shown an interest in the program (M10, 28-31).

One author has listed the following as typical services that might be made available:

1. Budget analysis and cost studies.
2. Long-range financial planning.

3. Community surveys.
4. Enrollment studies.
5. Pilot projects in various curricular areas.
6. Evaluation of instructional materials.
7. Development of local school district and regional norms for standardized tests.
8. Evaluation of various types of organizational and grouping practices (S58, 12).

There are 21 PACE (Project to Advance Creativity in Education) Centers in California. The objectives of these centers are as follows:

1.	Develop programs and/or project proposals.	(21)[1]
2.	Identify educational needs.	(19)
3.	Disseminate information and communication.	(19)
4.	Setting of priorities among identified needs.	(18)
5.	Evaluation of Centers and/or projects.	(16)
6.	Identify resources for problem solution (P51, 30).	(15)

The same report continues with the following nine activities being the most commonly reported at the 21 PACE Centers:

1.	Preparing and/or writing Title III proposals, or assisting in this work.	(18)
2.	Publishing newsletters and other materials. Dissemination.	(18)
3.	Planning and/or conducting workshops, seminars, and conferences.	(17)

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[1] The figures given in parenthesis are the number of centers listing that as an objective.

4.	Continuing the study and reporting of educational needs.	(16)
5.	Systematic collection of information.	(16)
6.	Coordinate other sources of funding than Title III.	(15)
7.	Encourage coordination and cooperation between agencies.	(15)
8.	Develop a pool or identification system for resources.	(12)
9.	Evaluating and defining the role of the PACE Centers (P51, 31).	(11)

One of these Centers is located at Fresno, California. It, along with the others, will be connected with the nation-wide regional educational laboratories, thus bringing together research from all the world. The Fresno center underscores the following statement by putting it in their bulletin in heavy print:

> The success of a Regional Planning Center will depend to a high degree on the amount of support it receives from the school districts, teachers associations, institutions of higher learning, and the civic and cultural societies in the local communities of Fresno County (F19, 3).

It might be stated that the PACE centers were designed to serve an area of from 100 000 to 300 000 pupil population. One should be reminded of the vast difference of opinion as to what a proper sized "region" should be. The type of services involved will also dictate sizes. Further discussion is found elsewhere in this paper.

The OCE Coalition is a statewide consortium of institutions and agencies in Oregon. The following quote will give an idea of the cooperative type program involved in this research program:

> Oregon College of Education (OCE) was identified as the lead or pillar institution within the consortium, and thus

> had the primary responsibility of translating the Com-field model into an operational program. Representatives from the consortium agencies contributed to the translation process through a Review and Advisory Panel. A coalition of seven school districts, Oregon College of Education and the Teaching Research Division of the Oregon System of Higher Education headed the translation process (S12, 68).

In addition to the above segments of the coalition, a management consultant was involved, a publishing company and the Northwest Regional Educational Laboratories as well as professional organizations and the citizenry itself (S12, 68-79).

In its most complete interpretation research usually involves a large base for meaningful data to be assembled. Additionally, the initial research idea might be in the mind of some scholars or business personnel at the school but unless it is a rather large school or school system, the research is not commenced because of the lack of time, money or personnel. Thirdly, after the research is completed, its findings must be made available. Finally, good as the research may be, if it is not applied its value may be questionable.

Many areas have found the values of cooperative action in the development and implementation of each of these four steps. Regional associations have been established, either as part of a comprehensive educational service center or as a special project in the area of research as a whole or on a specific problem.

5. Data processing

Without doubt computers are expensive to purchase or lease as well as operate and thus many have shied away from the route of electronic data processing because of the costs. However, Prince and

Richmond say, "Nothing could be further from the truth. Sophisticated computer services are available to any school district for a cost of less than three dollars per pupil" (P53, 48).

Per-pupil costs for the varied services can be low no matter what the size of the school--if the computer serves many pupils. This situation must exist if the cost efficiency is take effect. It has been stated that it takes 25 000 to 100 000 pupils in order for a computer to be economically practical. The Southwest Mississippi Data Processing Center serves about 60 000 pupils (P53, 48-50).

A basic data processing package in use in the Westchester County regional unit (BOCES No. 1) runs $4,50 ($4.50) per pupil and includes census, attendance, scheduling, some personnel records data and testing. Two options that are available are report cards at 10¢ each and payroll at 30¢ per check (R19, 105-106).

Another exhibit is that of 16 school districts in Snohomish and Island counties in Washington state, who operate a data processing center. The districts range in size from 20 to 28 000 pupils. Prior to the cooperative program only the two largest districts had these services.

The first year fees of the data processing center were $1,20 ($1.20) per pupil, the second year $3,00 ($3.00) and the third year $4,50 ($4.50), 50¢ less than expected. The latter figure of the more complete service package is about the same as that in New York mentioned previously (S29, 7).

> This has been a highly successful venture, and all concerned seem pleased with the results. Discussions are now taking place

> on the possibility of combining the present member districts with the two larger ones,using the same cooperative concept. This would give for a more sophisticated approach. It in turn could lead to on-line terminal access, which would allow considerable expansion in the instructional area (S29, 7).

The instructional uses of the computer are discussed elsewhere, though one should be aware of this dual application at this juncture.

In the operation of the data processing center, the staff costs will approximate the monthly hardware rental, according to one study. It has been suggested that it takes a minimum of five staff members to operate a center serving 15 000, with an additional member for each 10 000 additional pupils. Note here that the initial 15 000 pupils require one data person per 3 000 pupils whereas the ratio is 1:10 000 when the base exceeds 15 000 pupils, which would mean a per-pupil cost decrease as the numbers increase (P53, 56-57). As with so many fields, there are certain fixed costs which must be accepted but as the usage increases, all benefit from the lower per-unit costs.

The services offered by computers are many and varied. One data center in Boston does all examinations from the Technical High School and the two Latin schools. A computerized informational file is maintained for pupils in grades 7-12 as well as grade and summary records for 40 000 pupils in these grades. In addition, business office work is done at the center, such as budget account status reporting, requisitioning, maintenance records and reporting from a file of capital physical equipment (B40, 33).

A central computer links the schools in the Tempe, Arizona Elementary School District via telephone lines. The following items are computerized in operation:

pupil attendance records
textbook inventory
cafeteria inventory
substitute teacher hours
monthly enrollment cards
school grading
supply requisitions
custodian hours
test results
class registers
student directory
vouchers (B14, 22)

The 28 school districts near Pontiac, Michigan are served by a computer, which among other things has been used by social workers in working with truancy and dropouts among the region's 63 000 pupils (B14, 22).

A Texas position paper suggests that a media center serving 50 000 (A.D.A.--average daily attendance) pupils should consider utilizing a computer in circulation procedures (T16, 21).

The list of actual and possible services to be processed through a computer could continue, but suffice it to say that the computer has much to offer the administrator. Education is big business and virtually every phase of business now is enjoying the output of the computer. Much of the material being put through the process is of a management nature while other phases of it are of an instructional nature. In addition there is the actual teaching function.

In regard to the instructional phases, the following quotation has much wisdom:

> Classroom teachers need to be fully aware of the nature of the program which is being operated (data processing). Above all, they need enthusiasm for the program. Delivering the data to the center will change old habits. Accuracy is required. Standard operating procedures are essential. For this small degree of regimentation, one can receive a fantastic variety of information from the data presented to the computer (P53, 57-58).

The last sentence could be applied to the entire concept of cooperative effort and regional programs. Certain standardized operations and procedures are required. This is true in union catalogs, compatible media and formats of software. It is also a must in the data processing field, but the overall advantages and outcomes should, generally speaking, be well worth the slight inconvenience of standardization and certain concessions.

> Educational data processing is viable. It is here to stay. Total systems are not difficult to afford if school districts are willing to cooperate. One is reminded of the development caused when the comprehensive high school began to appear upon the educational scene in America. The computer will require a type of consolidation of efforts towards achieveing better educational services (P53, 58).

Though some educational service centers have their own computers, many utilize the time-sharing principle. The school districts surrounding California State College in southwestern Pennsylvania use the college computer. In this way the college is serving the community as well as making more complete use of its own equipment (K15, 9).

Project ADMIRE (Assistance for Decision Making Through Information Retrieval in Education) gives assistance to Nebraska's Educational Service Unit Number Six, which is the area around Lincoln. Five counties are served by the project. Basically the program is data-processing from the Lincoln Public Schools in cooperation with the

University of Nebraska at Lincoln. The services are both administrative as well as instructional (K5, 9-10).

Time-sharing with the county is done by the St. Louis County Schools in northern Minnesota. They do the payroll for their employees, which number 500 (S2, 1). In other cases the time sharing is done through a commercial concern. For instance, though Andrews University has its own computer facilities, certain operations are carried out with the Whirlpool Corporation computer. This is done via cable connections.

In some instances a small local computer will suffice for the operations needed. However, frequently it is more economical to share time with a larger unit.

> The reason is simply economic. The bigger and faster the computer, the cheaper it makes each computation. As a result it is far cheaper to build one large computer and operate it full time with thousands of customers, than to have thousands of small, inadequate computers, one for each user (who may use it only a few hours a month) (M34, 35).

Again, this basic concept is true with other types of exotic equipment and it should be kept in mind no matter what the equipment. Full utilization, within limits, is a necessity, otherwise per unit costs are excessive for the gains accrued.

6. Contract services

The contracting of services is done in various parts of the country. The local school or school district will pay a proportional fee for services rendered or a flat rate. In Wisconsin, the physical presence of a facility is of secondary importance in the Cooperative Educational Service Agency. The professional head of the agency is a coordinator and as such acts as an intermediary in the contract of needed services within the boundaries of the region. For instance in 1968 300 districts in Wisconsin were "parties to shared service contracts handled by the agencies" (W34, 24). Almost a million pupils are served by these agencies, of which there are 19 within the state (W34, 20-28).

The Boards of Cooperative Educational Services (BOCES) in New York are structured differently from those in Wisconsin in that actual facilities are present at the center. Certain procedures may be contracted here also. Data processing and library processing are the two most common services involved in the contracts (N26).

Educational service agencies in which there is an actual center with facilities and equipment are probably more common than the arrangement in Wisconsin in which the contracting program is the virtual center of their operations. Without doubt this program has numerous advantages, such as the absence of capital expenditures for buildings and equipment, the lack of personnel employment and the attendant problems. On the other hand services would be done here and some there with no central service area. Possibly facilities and equipment not designed for this extra load would not be able to render services as expeditiously and efficiently as those done in a facility designed for a region. At least these factors would have to be considered in making an evaluation of the two approaches.

According to California Education Code, a school can use an agency for assistance, such as in contracting for mental health, social services, etc. The stipulation is that the agency be qualified in its area (C9, 59-60).

Within California, school districts may contract with the county for audiovisual services, and in some cases the county contracts with another county. The unit charges for these services vary greatly about the state. The 1970 Report gives rates for each of the 58 counties. Several examples will be cited in Table X.

In Illinois some communities contract for bookmobile service. For instance for $600 annually a bookmobile will make a stop of two hours every other week and for $750 make a three hour stop, which "more nearly meets the actual cost of service" (R16, 1).

According to the director, state aid amounts to $18 per square mile plus 50¢ per capita. The Rolling Prairies regional library system encompasses a population of nearly 400 000 with an area of 4 500 square miles encompassing eleven counties (R16, 1).

In fairness it should be observed that several writers have mentioned a negative note on contracts. If the contracts are short-termed, it is very difficult for the organization rendering the service to plan ahead satisfactorily and it too often leaves the group in the lurch if certain contracts do not go through. Most of the regional and cooperative groups are non-profit and have little or nothing in the budget for absorbing such losses.

Several writers suggested the need for long-term contracts in order to build a stable program, a truly efficient and economical operation based on intelligent decisions by personnel who were assured,

TABLE X. SAMPLES OF CALIFORNIA AUDIOVISUAL CONTRACT RATES

Alameda County	$2,00 ($2.00) per unit a.d.a. (average daily attendance) for materials only
Contra Costa C.	$1,50 ($1.50) per unit a.d.a. for regular students
El Dorado C.	$2,60 ($2.60) per student based on October enrollment
Kings County	$.90 per unit a.d.a., elementary $.75 per unit a.d.a., secondary
Orange County	$1,50 ($1.50) per a.d.a.

Other counties charge differently than by straight a.d.a., such as:

Butte County	$60 per unit of 35 a.d.a. with 1-300 pupils on down to $46 per unit if over 901 pupils
Fresno County	$36,85 ($36.85) per teacher
Mendocinco Co.	$40 per teaching station
Trinity County	$100 per teacher
Sonoma County	Uses a rate based on assessed valuation

Maintenance contracts also vary from area to area, such as:

Plumas County	$150 per year
San Luis Obispo	$4,50-$7,55 ($4.50-$7.55) per hour plus parts
Mendocino C.	$3,50 ($3.50) per hour
Kern County	$.106 per unit a.d.a.
Glenn County	Charge for parts only

Some counties have a minimum charge per district, such as:

Imperial County	$200 minimum
Madera County	$150 minimum
Tehama County	$215 per district, plus an a.d.a. charge

TABLE X (Continued)

Instructional television charges also vary widely:

Tulare County	$.15 per unit a.d.a.
Los Angeles C.	$.75 per unit a.d.a.

Samplings of other services are:

San Bernardino County	$.25 per tape duplicated Film lease runs 1/7 of the cost
Orange County	$1,50 ($1.50) per non-film item rented (C7)

to some extent, of a position from year to year and not be left to the whims of sub-organizations.

7. Microforms

The placing of records, catalogs, valuable documents etc. on microforms is being done in many places across the nation. Large department stores place parts catalogs on ultrafiche or microfiche in order to gain ready accessability as well as a savings in space. It is generally said that microfilming is lower in cost than print forms.

The catch, frequently, is the cost of microfilming equipment. Page for page there is evidence that microforms are lower in overall costs. Two examples are the ERIC documents and the Dissertations available from the Xerox Corporation, where hardcopy is considerably higher from both organizations. Cursory examination of ERIC documents shows that original documents are usually higher than the microform edition (E13; R10; X2).

The microfilming of student records is being done in Cicero, Illinois schools. After graduation, the students' records are sent to the central office to be microfilmed and put on an aperature card and key punched for retrieval. Duplicate sets are produced for safety and the paper cumulative folders can be disposed of, saving valuable file space and giving more rapid retrieval.

Eight schools in the district use this approach. They are putting records from 1895 to date on aperature cards, thus saving further space. Most likely this service would not be available to a single school. Cooperation in the purchase and maintenance of the service has made possible a long-run savings. In addition it has given an immediate space savings and immediate convenience in retrieval (W15, 43).

8. Pool purchasing

It is almost axiomatic that the larger the quantity in an order, the lower the per-unit cost. No doubt this is a major factor in "Big Business" taking over, as it were. Small-business men cannot compete because of their smaller buying power and general higher overhead costs. Smaller-business men recognize this and thus in the grocery business, they cooperate in purchasing through such groups as the Spartan Stores in Michigan and the I.G.A. stores found about the country. Similar cooperative agreements are found in hardware merchandising and various franchised businesses.

Cooperative programs could be listed by the hundreds. One of the chief purposes is to save dollars in one way or another. A few samples will be presented form the school field. Four instance a northern Minnesota district reports:

> Regarding pool purchasing and co-operative equipment utilization, we purchase trucks and other maintenance materials together with the county government purchasing agent. We also share some of our equipment with the county government (S2, 1).

Educational Service Center Number Four in Nebraska, which serves about 12 000 pupils, figures that cooperative purchasing of media and materials has saved the five-county area about $20 000.

The center also repairs the equipment purchased. During 1970 this amounted to 558 pieces of equipment picked up, with 365 of the items being repaired during the summer, the rest during the year. The total cost was less than $600 with service usually being completed within one week (E15, 16-17).

The Washington County, Oregon Intermediate District, claims a net savings of about 30 per cent on the purchase of audiovisual equipment because of cooperative purchasing (A47, 15).

A rather typical situation might be illustrated. A certain projector sells for $134,50 ($134.50) retail. In asking for quotations, most dealers quoted this figure or quite close to it. By purchasing through a cooperative program, it was purchased at $90 and if three or more had been purchased, it could have been brought down to $83. The story could be repeated time and again. By cooperating dollars are usually saved (A34).

Small organizations generally cannot afford a purchasing officer and when a district does have such a person he must be an "expert" in many fields, such as office machines, audiovisual equipment, athletic equipment, building and custodial supplies and a host of other items. Consumer's Reports, Library Technology Reports and similar services assist in the selection procedure, though they cannot help in bringing down the per-unit cost in mass purchases.

Where districts pool their know-how, generally in the form of a regional educational service center or educational cooperative, they can frequently hire personnel who can devote their full time to purchasing. This includes the art of selection, being aware of the selection aids in each field, being aware of the market values, awareness of maintenance and longevity and other factors. In addition, by buying in volume quantities, prices can usually be lowered.

One of the arguments mentioned against this procedure is that savings are lost in high warehousing costs. Of course this must be considered; however, it should be noted that many items can be purchased under master contracts whereby the entire lot need not be received as one shipment, but may be obtained in segments during the year. Further study needs to be made as to comparative warehousing costs to determine if this is a loss.

9. Summary and comment

The literature gives strong indication that school districts are finding it to their advantage to pool their resources in the administrative process whenever practical and feasible. Generally speaking a definite cost saving can be realized. It can also be said that usually certain services can be made available that would not be available otherwise, unless the district were a very large unit.

Building and site services are usually available via commercial channels; however, many schools are finding it to their advantage to hire their own personnel for part or all of the operations. One organization saved over $25 000 in one year in architectural fees alone by hiring their own man (P38). Though savings may not always be as dramatic, they may be achieved by cooperative effort.

Research and translating services as well as other important but specialized services are more readily available when personnel are available along with appropriate facilities and equipment. Often the best avenue for this service is through a regional program. Not only are the research studies made that might not have been made, but they are more likely to be implemented within the school system.

Few schools can afford sophisticated data processing equipment, other than the most rudimentary, except by some sort of cooperative arrangement. Typically this is by time-sharing with either a commercial operator or via a larger school, school district or college. A multitude of administrative and instructional services are available from the computer when it is available. Routine tasks are performed that might not get done, or be tardy in accomplishment.

Regional service centers at times are mainly liaison units for contracting of services, such as in Wisconsin. In other cases certain aspects of the program may be contracted out, even though the regional center has many of the material facets of a center. This may be in data processing, library processing or instructional television, where a larger unit might be more adequate and economical. One size region will not always suffice for all types of services.

Miniaturization is found in many places today, including the placing of records on various forms of microforms, such as microfilm, microfiche, microcards, ultrafiche and aperature cards. Most smaller schools and school districts do not have the facilities to do this operation, thus cooperative programs, such as through a regional center, are found to answer this situation.

Pool purchasing is typically found to lower overall costs. Though some speak against it, yet most commercial outfits have found it to their advantage to buy in quantity, utilizing experts in this field who know what to buy, how to buy, from where to buy and when to do it. This is hardly a task for the over-worked principal or district superintendent.

Obviously concessions must be made in any cooperative endeavor. The gains made from these procedures usually are found to be well worth the give-and-take required in the cooperative process. Most of the literature bears out the validity of efficient administration via the techniques discussed. One thing is sure, if this approach is incorrect, hundreds of programs are on the wrong course, for this is the trend of this educational age.

The negative comment observed in the literature is usually in regard to the bureaucracy that all too often develops--the "red-tape" and all of its accompanying irritations. Inasmuch as many are aware of this frustrating experience, many agreements often reflect this independent spirit that cooperative parties desire to preserve. It does not appear that these two spirits, cooperation and efficiency, need to be antithical, if they are properly balanced.

CHAPTER 11

PERSONNEL SERVICES

1. Introductory comments

Certain professional specialties are in great need, yet the need is not always quantitative. Without doubt there is need for speech therapists, for example; yet usually not every school could afford to have one on the staff, nor would it possibly find ample work for the therapist. The same could be said about many varied specialty fields.

Without doubt, even within the rather common fields, such as physical education or home economics, there are times when a person who has specialized in one of these fields must double in a less qualified subject area because of need.

In these and in other phases of professional and technical personnel, there is not always full utilization of the skilled manpower available. Then in still other instances, smaller schools or districts just do not have the services of certain specialists inasmuch as they cannot afford what is required, or they could not use the person full-time in that specialty.

It is here that many schools and school districts are finding advantages in sharing their resources--human resources. Regional programs, in many instances, have come to the rescue.

2. Shared personnel

The idea of sharing and cooperating is not new in this decade, though regional educational service centers have served as catalysts in many cases.

The BOCES Unit One in Westchester County, New York, has a shared personnel program with personnel involved in the following areas:

Art
Music
Guidance
Nurse
Physical ed.
Handwriting
Driver ed.
Dental hygiene
Psychological help
Special classes
Remedial reading
Speech correction
Vision consultant (R6, 32)

St. Louis County, Minnesota has a shared personnel program in which 21 attendance units share in the services of music instruction (S2, 1). This is an area in which every school would find it difficult to have full-time professionals.

One of the prime purposes of the New York State Board of Cooperative Services (BOCES) was in the shared teacher program. Currently only eight per cent of the budget goes for this purpose. An intermediate district was to handle this phase, but it appears that the BOCES program is here to stay according to Ross (R19, 120; N26; C63, 34).

The concept of sharing personnel is noted in many of the lists of duties and services of regional educational services centers. Frequently these personnel are in the field of special education, library/media-audiovisual specialists, administrative consultants, subject consultants and similar situations.

It is quite unique to find that one of the largest school districts in the United States, that of the Los Angeles Public Schools, uses a form of shared services. They are using the "university concept" which uses the total secondary school faculty to its fullest, even in various schools. By the use of buses a pupil can achieve a good variety of course work by taking work in various schools under varied teachers (A37, 9, part 2).

The consultant program being used about the country often is a method of stretching personnel by assisting local educators in meeting under-staffing problems. Cooperating schools offer much course work by sharing instructors by either having them drive from school to school, having the students come to the school or some center, or possibly by the use of closed-circuit television, telephone, tele-writer, open-circuit television, radio etc. In some instances mobile facilities are used such as the pre-school program in Appalachia, rolling science laboratories in New Mexico, or in mobile library facilities found in every corner of the nation. With the media, there must usually be a knowledgeable instructor, thus there is a sharing of personnel (A38).[1]

3. Volunteer workers and paraprofessionals

The personnel shortages caused either by lack of professionals or financial shortages, have been alleviated to some degree in some areas by the acceptance of volunteers. In other cases, paraprofessionals are hired. The Trump Plan involves much of this concept (T27).

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[1] See chapter on Mobile Services.

It is very possible that schools could learn from the hospitals and the method by which they utilize volunteers and paraprofessionals in their program. It is common knowledge that the typical teacher spends up to 40 per cent of his time in non-professional duties. Similarly many librarians spend their precious professional time in mending books and caring for circulation chores.

Though these thoughts may seem of a "non-regional" nature, they must be considered in order to gain a full picture of the cooperative concept and the full utilization of people on the staff.

Boston had more than 325 members active in the School Volunteer program. These included many former teachers and librarians. Twenty to 31 new libraries were operated wholly or in part by volunteers from the community (B40, 27).

An example of sharing, as well as the use of paraprofessionals is found at Tarrytown, New York. They sent a lady to library school to gain a minimum knowledge of the field who returned to direct library aides in three elementary schools. She moves from school to school assisting the program. No, this is not ideal, but gives an example of what can be done as a starter (C19, 12).

Because of the services of regional educational service centers, paraprofessionals often can care for routine matters in a more effective way locally. The paraprofessional becomes a member of a team, not only on the local level, but in the total configuration.

One way in which this was done is found in Broward County, Florida where a central processing facility has been given credit for relieving the clerical shortage in local elementary school libraries. Inasmuch as the central facility has done most of the critical cataloging and processing, it is possible to use adult volunteers in routine tasks in the local libraries (G4, 39).

With the professional consultants available at so many of the regional educational service centers, assistance is available to the local schools and districts in the better utilization of the volunteers and paraprofessionals and in some cases may be of assistance as a clearinghouse for various types of personnel for specific duties.

4. Staff stability

Whereas sections two and three of this chapter have discussed personnel who are primarily in the local schools and the part that the service center has in coordinating their functions, parts four and following involve the internal staffing of the center.

A major problem encountered in some regional centers has been the securing and maintaining of an adequate professional staff. Frequently these service units are under federal auspices and thus are under annual funding or possibly on a three-year funding program. Approvals for federal funds often come late in the fiscal/school year and leave local personnel wondering as to their employment. Many people are not willing to accept such precarious positions, yet in spite of this, many able personnel have found their way into the centers.

Additionally these centers have to compete with major cities and wealthy suburban school districts which often have features worthy of merit, such as higher salary, cultural and recreational advantages etc (E14, 29-30).

Another factor mentioned in some of the literature is that regional programs often entail considerable travel, which in many parts of the country, such as the Midwest and similar places, means icy roads in the winter. In addition, no matter what the weather conditions, it may mean several hours each day on the road, which many find distasteful. A local school may lack some of the challenge, but it is steady and has a basically regular schedule.

Still another feature that may be a challenge to some but a hindrance to others, is the fact that most of the regional centers are in their embryonic stages and thus many problems need to be solved such as a certain amount of evangelism for the concept and similar sundry issues. Precarious funding from fickle legislatures, the annual personnel turnover, or possibly annual contract renewals or cancellations are factors in regional programs. Any planning of a regional program should consider these problems and act accordingly.

5. Staff requirements

Personnel needs vary according to the services offered, which are quite varied. Some examples will be offered so as to give some indication of what is being done at several regional centers about the land.

The Appalachia Educational Laboratory has suggested that the organization be divided into five major areas, the first of which is the Director of Curriculum and Instruction. He would be in charge of developing and providing educational programs. He would carry on much of the inter-action among other departmental personnel.

The second post is the Director of Delivery Systems, the one who is in charge of communications media, mobile facilities and data management. His function is as a service agency for curriculum and instruction.

The Director of Planning and Evaluating is involved in decision-making. He helps to co-ordinate the other divisions and assists in short and long-range planning.

Typically, the Director of Administrative Services works with organization, personnel, finance, facilities management, equipment management and business.

The Director of Communications is the public relations man. He works within and outside of the center in maintaining a smooth flow of action and information (A40, 39-47).

This particular model is of particular significance to this paper inasmuch as the Appalachia Educational Laboratory is working with a people who are among the poorest in the United States. They have many of the problems that face the Seventh-day Adventist church, such as limited finances, considerable distances between schools and a mandate that educational innovation be really significant for there is little time nor money for "frills."

The Dilenowisco Educational Cooperative in Virginia, which is a protegé of the Appalachia Laboratory, is divided into three major units. The first is the administrative unit with a director, bookkeeper and receptionist. The curriculum unit has a director, service specialist, reading specialist and a secretary. Thirdly is the special education unit for exceptional children with a director, psychologist, coordinator of social service and a secretary (D12, 1).

The Educational Service Unit serving the southern counties of the eastern shore of Maryland serves about 25 000 pupils and 1 150 teachers. Listed below are the staff members for each of the three years that it was federally funded. (See Table XI).

This would give the equivalent of 23 full-time persons in the educational service center to serve the 25 000 pupils. This is a ratio of about one to 1 087 pupils. Educational services are available, as far as salaries are concerned, at less than ten dollars per pupil annually.

The center in Bibb County, Georgia, is located in Macon, a city of over 122 000 people. Emphasis in this center has been on deprived children and their needs which are characterized by high dropout rates, low achievement, high failure, irregular attendance and many disciplinary problems (B28. 1).

Title 1 funds were made available for this special instructional materials center to serve the target schools of the region. With this background, it is evident that staffing might be somewhat different than an average center.

TABLE XI. STAFF EMPLOYED DURING THE PROJECT PERIOD: S.E. MARYLAND

Personnel	Number of Positions 1967-1968	 1968-1969	 1969-1970
Director	1	1	1
Reading specialist/teacher	4	3.6	4
Coordinator of Instruction	1	1	1
Media specialist	1	0	0
Psychologist and counselor	2	2	2
Speech therapist	1	2	2
Social worker	1	0	0
Electronic technician	1	1	1
Graphic artist	1	1	1
Distribution agent	1	1.5	1.5
Offset operator	0	.5	1
Supervisor of special education	0	0	1
Secretary	0	0	1
Custodian	4	5	5

Plus a Junior technician (student working part-time on film inspection and maintenance (E2, 223-224).

TABLE XII. STAFF IN BIBB COUNTY, GEORGIA MEDIA CENTER

Director -- in charge of all operations of the center

Secretary-receptionist -- assists the director

Office manager -- maintains records, coordinates office routines

Student aides -- part-time jobs in various clerical positions (2)

Records clerk -- works with office manager

Clerk -- works with films and tapes, duplicates, office machines

Curriculum specialist -- works in in-service work with teachers

Visiting consultant teacher -- assists teachers with materials and equipment at the center and in the classroom

Art consultant -- operates the art center, coordinates art activities

Media consultant -- assists teachers in center and in schools in use of media, demonstrations etc., previews materials, educational television etc.

Educational television technician -- works under director and media consultant in the educational television, coordinates television operations.

Producer Coordinator -- under media consultant, more of the professional aspects of E.T.V. (educational television)

Title 1 Evaluator -- coordinates federal Title 1 projects, especially with educationally disadvantaged children

Evaluation secretary -- works with Table 1 evaluator

Audio-visual director -- coordinates film library, the general A.V. program

Audio-visual secretary -- works with the A.V. director

Film inspector -- inspects all films, filmstrips, assists with other film work

Media technician -- delivers, minor servicing, demonstrates equipment usage

TABLE XII (Continued)

Equipment repairman -- repairs equipment, service calls, equipment inventory

Custodian -- maintains appearance of the center (B25)

This gives a total of 18 full-time personnel and two part-time. Considering the size of the locale and the type of clientele, this seems to be a reasonable figure. Keep in mind that this center is serving a large minority population in a southern state.

The regional center serving the greater Portland (Maine) area is somewhat different, being in a northern state, next to Canada. It serves a pupil population of 40 000.

The following are on the staff of the Portland center:

director
audiovisual technician
secretary
regional delivery man
account clerk
assistant director
librarian
library aides (2)
custodian
graphic arts specialist

The above personnel are all full-time, year-round workers. In addition they have two part-time library aides, plus either a full-time person on delivery and film library or two part-time persons. During the school year there are full-time coordinator aides as well as two additional half-time persons. It will be noted that this center is primarily in the media field (G41, 33).

Staffing requirements have been presented for several rather different locales: (1) a relatively poor mountain area, (2) an average rural-small city area, (3) a special media center for a southern medium-sized city and environs, (4) a media center for a medium-sized city and its environs in the New England area. The fifth exhibit is of an affluent suburban community to the north of the nation's capital.

Montgomery County, Maryland, has a population of several hundred thousand and is among the richest per capita in the nation. The Office of Instructional Materials is divided into five major areas:

1. Instructional Material Center with 15 staff members
2. Review and Evaluation Section with a staff of four
3. Processing Center with 17 on the staff
4. Library Services with three working in the area
5. Curriculum Laboratory with a staff of four

There is an overall director and his secretary. This center serves dozens of cities and communities, both urban and rural in a rather large locale.

No doubt each regional educational service center evolves, to some degree, according to local needs. A very large percentage of these centers have media production and/or dissemination at the heart of their operations, thus the administrator should be media oriented or at least such a person would be in charge of that component if the operation has several divisions. Such is generally the case in centers observed or reviewed in the literature.

One report suggests that for media centers, there should be three types of professionals. First would be the administrative and/or supervisory professional. This person would be overall head of the group. His background would be varied but would need to be able to organize and direct the operation.

The second major area would be the media field. This would be of three major types or levels. First would be the media generalist who would help implement the behavioral objectives by the selection and design of patterns, analyzing resources etc. Then there would be a media specialist in production with additional specialists in television, audio, graphic art, photographics, programmed instruction and such fields. Thirdly would be the specialist in dissemination. These personnel would have a media-library background in order to operate a resource center, disseminate materials, etc.

The third major area would be the curriculum specialist. This person would work with the media generalist in selecting and designing "instructional patterns" as well as evaluating and stating behavioral objectives (L1, 65-66).

As might be expected, some centers will have more of one type of personnel than another. Many authors have emphasized the need for the regional educational service center to be a dynamic organization ready and willing to change with the needs of the area.

6. Personnel ratios

The factors are many and varied but this section will attempt to give some idea of what is being done in a few areas regarding the number of personnel in various areas.

The Anne Arundel Decentralization Study (Maryland) suggests one supervisor of instruction for every 100 teachers. This would be total-program oriented. They further suggest 12-1/4 resource teachers for an area of 10 000 to 12 000 pupils, distributed as follows:

TABLE XIII. SUGGESTED RATIO OF RESOURCE TEACHERS FOR AREA OF 10 000 TO 12 000 PUPILS

Language arts	2	Music	1/2
Mathematics	2	Art	1/2
Science	2	Physical education	1/2
Social studies	2	Business education	1/2
Media specialist	1	Foreign language	1/4
Special education	1/2	Industrial arts	1/4
Home economics	1/4		

It may be necessary to share these "functional teachers" with other areas (A37, 11). Many of the authors mention this sharing of specialized personnel between or among districts.

The annual report for the Educational Service Units in Nebraska brings out some interesting comparisons. These units represent enrollments from a little over 1 000 to over 100 000 pupils. The figures for several of the smaller units are presented in Table XIV, with the enrollments listed for 1969 and the number of certified and non-certified personnel employed by the office.

TABLE XIV. SELECTED EDUCATIONAL SERVICE UNITS (E.S.U.) OF NEBRASKA

E.S.U. No.	No. of Counties	Private School Pupils	Total Pupils	Certified Personnel in Regional Center	Non-Cert.
5	3	708	9 698	22	7
11	6	0	8 623	12	5
13	2	361	1 552	4	1
14	2	0	2 002	5	3
15	2	0	1 775	2	0
17	2	378	4 271	6	1
19	3	427	5 761	9	3

It should be mentioned that not every county within the geographical limits of a region cooperates in the regional program. In Unit 15, two counties participate, and four do not. In Unit 17, two cooperate and three do not (N19).

Table XV lists the various personnel found in the previous listing.

In Missouri the state allows a maximum of 750 pupils per elementary school counselor. The ratio for secondary schools is one clock hour per day per 50 pupils enrolled with a maximum of six hours (M49, 167).

Rosander reports a study that suggests the ratios in Table XVI.

The Boston Public Schools employ specialists working with those with perceptual handicaps. During a recent year they had eleven teachers serving 61 pupils (B40, 35).

TABLE XV. SERVICE PERSONNEL FOUND IN SELECTED NEBRASKA SERVICE UNITS

Type of Personnel ESU:	5	11	13	14	15	17	19
Administration	2	1	1	1	1	1	1
Speech, Hearing, Sight	6	5	1	2	1	3	2
Mentally retarded	5	1	1				2
Health	3½	2	1	2			3½
Homebound	1						1
Teacher aids	2	2	1				1
Secretarial, clerical	3	1				1	1
Guidance-psychology	1			1		2	
Media	1	1		2			
Art		2					
Custodial		1					
Curriculum		1					
Media technicians	1						
Driver	1						
Special education (N19)	1						

TABLE XVI. PUPIL PERSONNEL RATIOS

Psychological services	1 per	500/2000 Average Daily Attendance (ADA)
Attendance counselors	1 per	2 200 ADA
Counselors - Senior High	1 per	250/350
Counselors - Junior High	1 per	250/350
Counselors - Elementary	1 per	500/1000
School social worker	1 per	2 400 (R19, 201)

As will be noted, the ratios are not consistent; however, from the literature it appears that one cannot stint in the field of special education and a ratio of about one to ten is a quite commonly noted figure. Again, guidance workers can only handle so many cases in order to do justice to the pupils. Final decisions will probably not be coming, though there is a developmental level that can generally be graded from poor up to excellent and ratios will be a vital factor in this gradation, other things being equal.

In some states, the appropriate ratio will be dictated by the code. In other cases professional associations will give recommendations. No doubt local conditions will vary the ratios also. Each of these facets must be considered in establishing the regional program.

7. Summary and comment

No matter what the value in facilities and equipment, it is primarily the personnel utilizing it that count most in just about any form of reckoning. Adequate professional education is a must for each educational specialty. The problem arises all too often in finding the appropriate person for a given position. At times a given school cannot afford a full-time person for a special application. If the person is hired, he must all too often use a portion of his talents in a field in which he is not adequately prepared. An alternate is to share his services with another school or in some other fashion utilize his talents to their fullest, such as putting him into television teaching, work with a teaching team or some similar act. This alternate solution usually involves cooperative action. It is here that a regional center can assist.

Regional educational service centers also frequently offer consultant services in various disciplines. In other situations an itinerant teacher moves from school to school teaching elementary physical education, music or art. Still other centers offer substitute teacher service. Regional services frequently allow more usage of volunteer services and paraprofessionals. The regional center acts as a coordinator of shared services on various levels and in various fields. It may be the middle man or it may actually be the source of supply.

The stability of regional personnel appears to be a problem. Among the reasons are the capricious federal funding, travel involved for personnel, competition from wealthier districts and the current "state of the art"--definitely in the throes of early evolution, which are a challenge to some and a frustration and fear to others.

The staffing of regional educational service centers will be dependent upon territory, funding, objectives and actual needs.

Typically the media component is at the center of a large proportion of these centers and thus a large number of the personnel are in the media field. Other services frequently include those in special education, health services, guidance and counseling services, administrative services and curricular services. In addition there are the paraprofessionals and technicians, plus the custodial personnel and deliverymen. The number and placement are determined according to the varied factors suggested above, as well as others.

The ratio of various specialized personnel to the number of pupils served will vary according to the field. Legal codes will establish the ratios in some states, while professional associations will render their recommendations or dictums in others. Common sense and experience will give guidance in other fields, as well as study of what others have done. Examples to illustrate the types of personnel and the ratio to be expected have been listed in this chapter.

In summation, the regional educational service center works with the schools in the sharing of teachers and related personnel; in making it possible to better utilize volunteers and paraprofessionals; in sending out professional and technical assistance in the form of consultants, maintenance men or resource persons; in offering services at the center and disseminating the information or delivering the productions. Personnel are involved at each step of the way. They will make the system work, or destroy it, thus the awesome responsibility of selecting personnel adequate for the needs.

CHAPTER 12

PUPIL PERSONNEL SERVICES AND SPECIAL EDUCATION

1. The general situation

Generally speaking the larger school districts do not have a problem in the pupil personnel services area inasmuch as they have ample tax base and pupil population to manage a complete service network.

As is typical all too often, the smaller districts are at a disadvantage. California has foreseen some of this problem by providing the following:

> Unified school districts with enrollments of 1,501 or less, and elementary districts with enrollments of 901 or less, are eligible to receive direct pupil personnel services from the office of the county superintendent of schools, which is required to provide services mandated by state law (C9, 14).

As might be surmised, some districts are at that awkward level where they cannot employ a staff on their own, yet cannot obtain free services. In these cases, in California, they may contract with the county. Many of these counties have a very reputable corp of pupil personnel workers. Such is the case in Napa County, a rural agricultural area with one city of 20 000 and numerous small towns. Adjacent to Napa County is Sonoma County with a city of 40 000, several smaller cities and many small towns. With the relatively strong intermediate program they are able to offer a good program in many areas, including pupil personnel services.

The State of California cautions those working on cooperative programs to "avoid overloading this worker and spreading services too thin" (C9, 14). This warning has been voiced by others as well, thus in many sections of the country ratios have been worked out to give an indication of the load that each type of worker should typically carry.

The concept of contracting for certain services is found in many parts of the nation. The schools in the Duluth, Minnesota area contract with the Duluth Mental Hygiene Clinic and the Iron Mountain Mental Hygiene Clinic for psychological and testing services. They also have their own school psychologist (S2, 1).

The Wabash Valley Supplemental Educational Center in Indiana lists the following services in the pupil personnel area in their proposal:

1. Individual inventory and pupil appraisal system
2. Testing program
3. Career planning service
4. Counseling services
5. Group guidance activities
6. Better articulation with elementary and junior high schools
7. School psychological services
8. In-service training programs
9. Survey and research programs
10. Community agency coordination (I10, 71).

Not all of these goals were immediately implemented, but rather were put on a priority schedule. Most such programs must be implemented in such a fashion. Programs such as that listed for the Wabash Valley could be duplicated across the nation.

2. Testing services

Many of the regional centers have various testing services. Again the Wabash Valley unit in Indiana has measurement and evaluation services which includes loan of test booklets and manuals, scoring services and workshops for specialists. They claim that the program has been received beyond expectations (I10, 5).

Rosander has suggested a "test bank" at the county level to assist local districts. In particular he mentions that diagnostic tests "could be loaned to districts for experimental use (R18, 266).

In some areas, the superintendent has available manuals and test books for use in very small schools inasmuch as many of the test publishers sell only in quantities of 30 or so, which would necessitate an unnecessary expenditure of funds.

Test scoring equipment and services are available from some of the publishers of tests. In addition, some districts have such services available at the intermediate office, or if the local district is large enough, at that office. Machines are currently available which can correct objective tests. These units sell for less than a 16 mm projector and can be adapted to standardized testing.

3. Counseling and guidance

Among the many units working with counseling and guidance is that of a cooperative program among three counties of Nebraska in which the elementary guidance program involved one out of four of the pupils in the area. 2 400 out of the 10 000 pupils received help from the staff which includes a director and five counselors. Emphasis is towards serving all the children, not just those with problems (K5, 15-16).

Few states have their guidance and pupil personnel supervisory staff physically decentralized. One author states that only five states have their state department staff regionalized and this amounts to only 14 elementary level school guidance personnel. Seven states had 33 secondary level guidance staff in regional offices. Three states had regionalized school psychological services involving 15 staff. Four states had regionalized social work services with 15 supervisors. In Georgia, attendance services in the regional offices are handled by social workers. All told, it is apparent that few of these services are available on a regionalized basis when supported by the state.

Many educational units have counseling and guidance personnel; however, they are usually administered on the intermediate level, or where the district is large enough, on the local district level. Even with each of these eschelons of administration, some work out of the central office, others are stationed in specific schools (W4, 38-39).

A study of eight Presbyterian colleges in the South showed a counseling cost ranging from $20,36 ($20.36) to $53,63 ($53.63) with a direct relationship for the most part between the size of the school and the costs of this service. The highest cost was for the smallest college and the lowest cost was for the largest of the colleges. No doubt there is a point of marginal return with this as with other services, but it is indicative of the situation that exists in colleges or any other similar situation (C52, 206).

The counseling and guidance field is generally considered an important phase of the school program, yet when there is need for trimming the budget, these "services" are dropped all too often, which without doubt is poor procedure. Frequently by cooperative action, this can be remedied. Many regional centers offer these services for schools that might not be able to offer them on their own.

4. Occupational guidance

Regional centers have been successful many times in the occupational guidance area. One of these is the Northeastern University Career Information Center which has been in operation since 1950. The center has cooperated with various groups in the dissemination of information on careers. Boston Educational Television, WGBH-TV, cooperated in the production of thirteen programs. From 1958-1966 approximately 1 200 schools in the North Atlantic area used broadcast tapes produced at the center. In 1961 filmstrips commenced to be developed and these have been used in 800 area schools (U9, 36).

Until 1968, at the retirement of the director, they held career assemblies for pupils in specific career fields (U9, 36).

Though television has been used for some years, the chances of individual stations financing a similar series is not likely inasmuch as time on the stations is more completely scheduled and available support for such is less (U9, 30).

In South Bend, Indiana there has been a guidance center that "is designed to facilitate a more meaningful and comprehensive guidance program for the benefit of the total community" (I13, 1). The State Vocational Education Division has funded the center though it is coordinated by Indiana University at South Bend in cooperation with the area schools, business and industry, as well as the local chambers of commerce--a really cooperative venture in many ways.

The center acts as a clearinghouse of information on vocational offerings, as well as offering in-service seminars and workshops for teachers. Teachers may obtain aid for guidance units at school. They also have a library of audiovisual and book material. Professionals may preview materials and in addition graduate students use the facilities in counselor training (I13, 1).

Vocational guidance is being given to students of three high schools in Tennessee as a result of a cooperative agreement. Eighteen videotapes are involved, as of 1970, each being 15 minutes in length and informing the pupil of jobs, salaries, promotion potential and qualifications. These tapes are being prepared by station WBRA-TV in Roanoke, Virginia (V2, 31).

Currently within Kentucky and Tennessee they are using microfilm listing 200 different job possibilities. These are viewed on a reader-printer, thus enabling a print-out of items of interest.

In West Virginia they are using a guidance package utilizing a game approach. All these approaches are geared to youngsters who are out of the mainstream of American life (V2, 31). The Reader-printer technique is also being used in small high schools in Northern California (G46).

The United States Department of Defense has been a pioneer in the field of audiovisual aids. The Navy alone has over 42 000 transparencies in the field of vocational-technical training programs. The army and air force have similar programs.

Much of this material can be of value in the civilian program, thus the Northwest Regional Educational Laboratory in Portland, Oregon along with the Washington State Department of Vocational Education and Washington State University have been examining various media produced by the military and then classifying, indexing and packaging them for civil use.

> Establishment of a dissemination center in cooperation with State Departments of Vocational Education to make the instructional aids accessible to manpower programs and to public and private schools, community colleges and other agencies engaged in vocational education efforts is part of their program (N47).

Obviously much of the material just mentioned will be used in actual job training and not just in guidance into those fields. This report does give a good concept of what is available through the multiplication of channels for distribution, as well as cooperative and regional attacks to a problem.

5. Human Ecology

The possibilities in this field are quite understandably extensive. Only a few programs can be listed, such as the Arkansas River Valley Area Council and its work in assisting people socially, economically and educationally. They have placed about 1 200 on jobs, provided 13 day-care centers, 10 000 people served in homes, 1 200 assisted in improving homes and 2 000 aided by nurses. This has been a cooperative project and similar to many other projects (G48, 51).

The 15th Lake Okoboji Educational Media Leadership Conference's study committee B has suggested the following activities to "foster greater understanding of the problems of minority groups" (L2, 54). These suggestions may be on the local, regional or state-wide basis, but on the regional level there are:

In-service human relations programs
Urban/suburban in-service programs for teachers
Exchange of materials
Urban/suburban field trip exchange
Urban/suburban media specialist exchange conference (L2, 56).

Throughout the United States there are cooperative ventures being carried on by public health offices, public welfare offices and other agencies and inter-agencies. Each of these programs has one or more facets tailored to assist people in their inter-personal problems. The approaches being used are similar in many instances to those being used in the educational service centers and indeed often include them as a member of the regional program.

6. Health services

Large school systems maintain personnel for the school health needs or the health services are furnished by the public health office directly or by contract. These services will vary, but frequently will include inoculations, health examinations, sight and hearing screening programs, school health nurse services, at times dental examinations or actual dental work and certain medical services. Health education programs, drug education programs, sex education, venereal disease education and prevention, environmental pollution programs, help for the physically handicapped are among other services that are frequently offered, either by the school or the public health service.

In smaller communities it is often necessary to rely upon local health personnel for assistance, such as the local physician, dentists and nurses. Volunteer help is frequently resorted to by parochial schools (C67, 401).

In general, school health services can be considered as being either educational in function, such as in drugs, nutrition, pollution prevention etc., or screening in nature, such as ear and eye tests. In some areas a third function is involved where actual preventive and ameliorative measures are taken, such as school lunches for the migrant children, dental clinics and the like.

A New Mexico study suggests that a school nurse should be available at the ratio of 1:1 000 pupils. In lightly populated areas she should be within a 15 minute time radius. The same report suggests that a school or system should contract for a physician to serve at a ratio of 1:10 000 (B1, 15, 97).

Obviously the services will vary according to need, other agencies serving the area, financial resources available etc.

Particularly in the smaller communities, the contracting of services with the county or a regional cooperative is an avenue of providing quality service at a minimum outlay.

Comprehensive Mental Health Service is being offered in five school systems in the Omaha, Nebraska area. They work in cooperation with the Nebraska Psychiatric Institute and the Visiting Nurse Association of Douglas County in which Omaha is located. Psychiatrists, public health nurses, administrators of the school and the teacher work together in assisting the child with mental health problems.

Among the services involved are in-service programs, workshops for teachers, etc. The teachers assist by gathering information, by learning how to improve classroom environment, spotting symptoms and similar functions. From the report, the results of the program have not been statistically too satisfying (K5, 13-14).

After searching through scores of school health and public health reports it is evident that the concept of school health services is accepted nationally. Costs are rising and thus it is of paramount importance that the best service be rendered at the lowest cost. Frequently comment is made regarding the need to lessen duplication of service functions. No doubt this is a factor in the public health service and the schools working together in mutual programs (C13, 34).

7. Media for special education

This type of program is a "natural" in the line of regional thinking inasmuch as the media are used by a relatively small number of youngsters and youth in any given area. The financial undertaking is also quite ambitious unless the costs can be shared.

Fourteen regional centers in the United States have been provided for the education of the handicapped and the benefit of their teachers. Their functions are:

A. collecting materials and information about materials pertinent to teaching of the handicapped

B. providing information storage and retrieval services

C. circulating new and innovative instructional materials and newer media

D. field testing and evaluating materials

E. serving as consultants on educational materials to special education teachers within their service regions (U13).

Emphasis is on communication even among the regional centers, as well as with manufacturers of products within this field. The centers are acting as clearinghouses among various groups. In addition they are promoting affiliate centers within each of the regions.

These centers are operated in cooperation with the ERIC (Educational Resources Information Center of the U.S. OFfice of Education) clearinghouse for exceptional children.

These centers are located at the following institutions and serve the states nearby:

University of Oregon
University of Texas
Colorado State College
University of Kansas
University of Kentucky
Boston University
University of Southern California
State Dept. of Education for Illinois
Michigan State University
New York State Dept. of Education
University of South Florida
George Washington University

American Printing House for the Blind and serving the entire nation within its field (U13; 06, 28-29).

In 1966 the State Board of Public Instruction for Iowa approved a plan by which sixteen centrally located counties would serve as regional depositories for special equipment and materials to be used by the handicapped of the state. They administer and disburse large print and Braille books, magnifiers, recorders, talking books, amplifiers, specially designed text material and similar items (I5, 281).

The State of Washington operates four materials centers for special education which are located at the University of Washington in Seattle and serves as the main base, Western Washington State College at Bellingham, Central Washington State College at Ellensburg, and Eastern Washington State College at Cheney. The three latter centers are referred to as Associate Special Education Instructional Materials Centers (ASEIMC). They have walk-in and mail-in service. Though the emphasis varies somewhat from center to center, generally speaking they have materials to assist in working with all types of handicapped children, such as retarded, emotionally disturbed, those with speech and hearing problems and those who are poverty stricken (F14, 8).

8. Gifted and enrichment programs

The gifted child is all too frequently the forgotten pupil. Most frequently programs geared to this group are in the urban centers, though it appears that what is being done can be duplicated in the smaller communities, in some cases locally and others regionally.

One example to consider is that of Akron, Ohio, a city of about 300 000, which offers a summer program for secondary students. They have Creative Learning Centers which

> . . . provide opportunities for talented students to deepen understanding, extend skills, experiment and explore in many subject areas. Students must be recommended by their teachers or their principal (A4, 1).

Work is given in astronomy with use being made of the planetarium. In biology they collect, analyze and carry out in-depth investigations. Two special design courses are given in craft shop and in sewing and wardrobe design (A4).

A similar program is offered to younger pupils, called the Junior Explorers. They make use of the city parks and in general extend the classroom physically and philosophically by putting emphasis on creative work, not only in scientific thinking but in cultural arts such as art, dramatics, music and writing. In addition work is being done with the primary child by assisting him in using media "beyond the scope of the regular school program". (A3, 5).

These pupils also may obtain work in Russian, research and study skills as well as elementary typing (A3).

> Gifted-child education in sparsely populated areas is a matter of identifying and placing children in appropriate learning situations. The key words are 'identification', 'placement', 'access', 'involvement', 'motivation', 'acquiring higher aspirations', and 'receiving individualized instruction and opportunities for independent learning.' Crucial factors are; guidance, small-group counseling, individual counseling, tutoring, seminar programs, and independent study. Access involves exposure to and immersion in a responsive, organized, and meaningful learning environment (P20, 1).

Gifted children need large numbers and variety of media, access to resource people, challenging and knowledgeable persons as well as motivation. They need transportation, communication via tape, telephone, television and letters. Teachers must be helped in their work with these youth (P20, 1-6).

Ploughman gives the following seven suggestions to improve the situation with this talented group.

1. Develop multi-county regional approaches for planning and conducting programs for these children in sparsely settled areas.
2. Work with school districts in preparing curriculum guides, kits, and other resource materials.
3. Establish demonstration situations in districts in the region.
4. Produce educational television programs on suitable topics, and develop tele-lectures and tele-teaching techniques.
5. Promote the use of high school and college correspondence courses.
6. Develop "cooperative-contractual summer schools" for the gifted.
7. Develop and coordinate the seminar program for students who live in isolated areas. Involve professional personnel in many areas (P20, 7-8).

Another program worthy of note is that in Oregon covering seven rural counties. A six-week summer program emphasizes creative leadership, rich humanistic-social science base for "value exploration." For this program they screen teachers carefully. These teachers are creative and are given "free reign and maximum administrative support" (P20, 7-8).

> The (summer) school provided a woven matrix of experience and concept for its student population in a five-strand construct involving lecture-demonstration, conversational dialogue, interdisciplinary classes, cultural experience in the fine arts, and weekend tours (P20, 11).

The place of the R.E.S.C. in such programs is readily apparent.

9. Rehabilitation

The rehabilitation programs are quite varied in scope and in administrative structure. Louisiana has been doing considerable in the field of vocational rehabilitation by giving counseling, training, medical assistance, maintenance, tools and transportation. The state has ten regional offices about the state (I5).

There are 43 cooperative agreements in special education-vocational rehabilitation in Michigan's secondary school districts. These agreements are "not substitutes for quality secondary programs for the handicapped." However, the report brings out that 87 per cent of the handicapped adolescents could not get help otherwise (M37, 1-2).

This report gives rather startling impact to the necessity of cooperative programs in some areas.

> To distribute manpower and resources equitably, it will be necessary in the future to shift Special Education-Vocational Rehabilitation cooperative agreements from local school districts to the intermediate level (M37, 5).

Seven comprehensive rehabilitation centers should be established within the State of Michigan, with "linkages to smaller sheltered workshops and rehabilitations clinics" according to a Michigan report.

Current plans call for about 30 of these community centers. The seven regional centers will be scattered about the state one in the upper peninsula, three in western Michigan and three in eastern Michigan.

Planning is also under way for similar facilities for alcoholics and drug dependent individuals. Most communities are not in a position to properly or adequately care for these people, thus regional programs are being found to be a feasible approach (M38, 4, 7).

Minnesota is operating a program whereby they render services to the patients "on location"--they go to the patient. This is done with the vocational rehabilitation program. At this writing 41 school districts, eight state hospitals and two correctional institutions are cooperating.

In school districts, the state agency places vocational adjustment coordinators in 40 districts which actually serve 175 districts. These services are also to retarded and severely handicapped youth. This program helps with general education programs and job training.

If a district has too few pupils, they may combine with other districts under an agreeable contract, subject to the approval of the Division of Vocational Rehabilitation of the State of Minnesota (D24, 11).

10. Special education as a whole

As might be expected, special education is an expensive program to administer and operate. Then too, a relatively small number of pupils are in need of these financially expensive services. It is thus that in many areas, school districts cooperate in such programs or contract for the services.

The Lake Washington Special Education Center, the oldest cooperative center for the handicapped in the United States, serves seven school districts of Washington State. They work with the neurologically handicapped, emotionally disturbed, those with birth injuries and other handicaps. They have a staff of 40 and an enrollment of 144 as of this writing. Over 1 000 have been served since its founding in 1951. Interestingly, they have 12 volunteer Red Cross workers on the staff. They carry on physical therapy, physical education, crafts and shop, sewing, therapeutic exercise etc. (L5, 2-3).

Emphasis in the special education program of the Southeast Educational Service Center in Sioux Falls, South Dakota has been on coordination of efforts among various agencies and the school administrators. One of the accomplishments was the combining of three private schools for handicapped under one board and then offering a more comprehensive program. The facets include: pre-school, life skills study, academic training for mentally retarded (ages 6-24), extended diagnostic center, and day care for multi-handicapped (S40, 9-11).

This same center also works cooperatively with the Jaycees in the operation of a summer camp for the handicapped. This program has been cooperative in just about all phases. The federal government has funded it, and the Jaycees, a local civic group, has spearheaded the program. A member of the local Association for Retarded Children gave a reasonable long term lease on 30 acres of land and then later deeded the land free. College students acted as counselors for

224 handicapped children in the summer of 1969. In 1970 416 children were scheduled. The University of South Dakota and Augustana College cooperated in offering collegiate credit for the 24 counselors. Six high-school seniors took a leadership training course also. The special education supervisors from the Sioux Falls Public Schools were also on the staff (S40, 10-14).

One regional center listed fourteen different special-education programs as possible encounters, ranging from trainable retarded children to programs with the deaf and blind (I8, 20).

Within the state of Louisiana there are eleven special education centers which are located at various colleges and universities. Each institution serves a project area. The centers evaluate the exceptional child, consult with the teachers and others, provide in-service and pre-service education for teachers and exceptional children, and give consultation to teachers of special classes (I3, 2-3).

A Cerebral Dysfunction Center has been operated by ten school systems of the Providence-Blackstone Valley area in Rhode Island. They work with special education for these children, develop gross screening procedures, provide diagnostic services, develop curricula and materials for these children, initiate cooperative teacher-training programs and similar items (S46, 28-29).

In Northeastern Minnesota there is a cooperative special education program known as "RAND" which for the most part has been federally funded, though it is hoped it will become part of a state legislature established regional program. In the past each school district that belonged to the RAND Council paid a fee of one dollar per student for the services rendered (S2, 1).

The Monadnock Children's Special Services Center is another program which has been started with federal support and now is on local funding. More than 30 towns have benefited by the services of the center. It is run as a nonprofit corporation with a board of directors and three superintendents acting as the executive committee (D5, 1).

There are several elements that appear as common denominators. In the first place virtually no school can offer ample special education programs, unless that is its sole purpose of existence. There are only so many children with specified dysfunctions, thus it takes a certain pupil base to bring about large enough numbers of children with special education problems. Certain ratios of professional personnel to exceptional children have been accepted as approximate. Whereas a regular teacher may be able to properly handle several dozen normal children, a special education teacher may be able to handle a dozen or even fewer.

Therefore it is observed that most special education programs are a cooperative venture on some administrative level. In some cases the district may be of ample size, but if not the intermediate district will have to offer the service. Even in many cases where the district could offer the service, a regional educational service center operates the service. Such is the case in Nassau County, New York, a very populous suburban community of New York City. 2 533 special-education pupils are served here at a cost of almost nine million dollars out of the Board of Cooperative Services budget of almost 23 million dollars (C13, 6, 47).

With such a costly program, regional programs are a virtual must in the care of the exceptional child. The intermediate unit is fulfilling its role in many areas by maintaining a service that would be very difficult if not impossible to fulfill otherwise.

11. Summary and comment

Though the media component is probably the most common single component of regional educational service centers, yet there are some regions where the special-education field has become paramount. However, even in the former centers, special-education services are very commonly found.

Among the services offered in this field of pupil personnel services are health services such as screening, education, prevention and in some cases actual treatment. Mental health programs are offered in some regions. Social services, psychological services, counseling and guidance, vocational guidance and career education are among other fields offered.

In most cases the local schools cannot operate satisfactory programs independently. It is thus that they cooperate among themselves in offering pupil personnel services or in other situations they cooperate with other agencies, such as the public health office, social welfare office, mental health associations or other community resources.

In some fields it is possible to get by with a relatively small pupil base and still offer reasonably good services. In the pupil personnel field it is more difficult. It is probably easier to drop some services without direct, obvious consequences than in the field of special education. Work among the gifted can suffer less inasmuch as the children by their position can better care for themselves than those who are physically or mentally handicapped.

Actually it should not be necessary for any to suffer. Though regional programs are not a panacea for all of educational ills, they definitely have filled a role in the pupil personnel and special education field. Where local districts and schools cannot care for these young people, the intermediate unit usually can, with each member contributing to the overall costs of the operation. This is being done currently from New York to California and many spots in between.

CHAPTER 13

MOBILE SERVICES

1. Introductory comments

Many organizations are finding that where the people cannot be brought to the facilities and personnel, the facilities and the personnel might be brought to the people. This is usually done through a mobile unit of some sort, though in some areas aircraft, boats and railroads are utilized.

Certain facilities are too costly relative to their limited use in a given area. Similarly skilled personnel are needed in various areas, yet full-time personnel are not practical. Inasmuch as facilities and specialized equipment along with accompanying software are usually associated with the professionals and technicians, a method must be devised whereby the needed services may be rendered in the most efficient and practical way possible.

Mobile units have been found to be the answer in some areas, though it is usually accepted that they are not the complete or even partial answer in every application.

The mobile unit offers many possibilities in applications of interest to educators. The vehicles have been used by public health services, commercial and industrial companies in sales and training; by the military in electronics, public relations, logistics etc.;

in communications in emergency services, temporary quarters and advertising as well as a host of other organizations.

Various companies manufacture either self-propelled vehicles such as modified trucks or buses, a variation of the trailer concept in full truck-type trailers, semi-trailers, simple one or two-axle light-weight trailers, or mobile home-type units with widths of eight, ten or twelve feet wide and up to 60 or 65 feet in length.

Commercially constructed self-propelled mobile units will average \$8 000 for a ten-foot unit up to possibly \$25 000 for a 29-foot vehicle. As might be expected at this price, much is involved inasmuch as the work is usually customized to a degree or in some cases entirely customized. Usually much sophisticated equipment and customized cabinetry must be installed. Gerstenlager, a major manufacturer of such vehicles, estimates the annual cost of operation to be between \$800 and \$1 500 which includes gasoline, oil, insurance, normal preventive maintenance, cleaning and storage (G29, 13; T25).

It is obvious that the mobile unit is not an economy type of facility. The implementation of mobile units must be weighed against the construction of specialized facilities at a given school or school district for use during X number of hours weekly. Keep in mind that the construction of the building itself at \$20 to \$30 or more per square foot is not the end of financial outlay. In addition there is equipping the area. Then it must be considered, how many hours out of the week will the facility with its specialized equipment be in operation?

In addition to constructing and equipping, consideration must be given to staffing the facility. In some instances this problem can be solved by having a part-time professional for the job who is shared with other schools or districts. In this case the one hired for the position could drive from school to school or possibly fly. With some types of services this approach no doubt would be feasible. In other cases the professional prefers a certain configuration or arrangement of equipment and facilities which could be a problem if the facilities are shared with other classes or services.

Another factor to consider is the investment involved in the building and equipment. If this is substantial, then a large investment is lying idle for many hours during the day, or possibly days on end. Even though the truck or trailer is more costly on a square footage basis, it may be the less expensive when consideration is given to equipment investment, ease of operation and set-up time for the personnel using the unit, convenience and total usage of facilities and equipment. Much of the current equipment has a fixed depreciation schedule, whether being used but a few hours per day or 40 hours a week. Similarly, much equipment becomes outmoded in but a few years. If the equipment is used little, it will be outmoded, even though it has much service potential remaining.

Mobile units are utilized in many different ways in education as well as in other fields. Some examples of uses in both education and other fields will be presented, inasmuch as much can be learned from sources outside of educational circles.

2. Bookmobiles

In the United States the bookmobile is probably one of the most common types of mobile learning facilities. Empirically speaking it seems that virtually every area in the country has bookmobile facilities. They are noted in shopping centers, parked in small mountain towns or in a new suburban community. The units typically are self-propelled, though they also are found in trailer form to be used for longer stays in a given location. In this latter form they are used for temporary quarters in areas without regular library service, such as in a new subdivision.

The self-propelled units are driven by a librarian and maybe an aide. The units carry anywhere from several hundred to several thousand books. The shelves are usually slanted so that the books will not tumble off the shelf while in transit. They are self-contained with heating and possibly air-conditioning as well as lights.

The collection of books is changed periodically, in many cases, so the patrons have a variety of materials. These bookmobiles usually operate out of the main library.

> The bookmobile is a practical extension of services from the main library. Bookmobiles often service the outlying schools, public and parochial, providing a valuable supplement to the school and classroom library (C67).

Even though the mobile units are operated by the public library as such, without doubt they are of much value to the pupils in the schools, directly and indirectly. Almost any teacher can vouch for such use by his or her pupils.

The Troy, New York library has a mobile unit for art education. It is stocked with 2 300 books, movies, slides and filmstrips with projectors. They also have a collection of art reproductions and sculptures. Without doubt the cultural advantages to the area are positive (B28).

Large mobile home-type trailers are being used in some areas as temporary branch offices. The Free Public Library of Philadelphia is using five such units. Each unit has 600 square feet of floor space which gives ample room for 2 300 books plus reader space and circulation facilities. The Moshannon Valley School District in Clearfield County, Pennsylvania has two elementary school libraries of 720 square feet each. These were received completely stocked with preprocessed books. The units have a capacity of 40 seated pupils, plus shelving for 5 600 books. The Bro-Dart company, which is a library supplier, has provided this service. These units are up to 12 feet wide and 60 feet in length (B45).

Mobility is a definite advantage of the mobile units which gives the positive factors enumerated earlier but at a cost. From the tremendous use being given these bookmobiles there is every indication that the cost is worth it, when all the factors are considered.

One caution must be given. The units must be built to handle the heavy loads. Mobile classroom units of say 10 or 12 foot widths and 50 to 65 foot lengths are being utilized for classroom units but this does not necessarily indicate that the frames can handle the extra load of books, especially when in transit. Thus what is good for one use will not necessarily be just as adequate for another. A unit in Lincoln, Nebraska had some of these problems, namely not being adequate in heftiness for the use as a book unit in a temporary library situation (L21).

The State library of Michigan has several bookmobiles available for use by local areas. These operate out of the state capital in Lansing. This gives a backup service for areas that would not have use for a unit on a regular basis. They are also used for areas that wish to experiment with the bookmobile concept.

The bookmobile is here to stay for it has fulfilled its probation. Its usefulness is established, though all will admit it has its drawbacks. All factors must be considered prior to acceptance of the concept for any specific situation, however.

3. Special education and other pupil services

It is in the field of special education that mobile facilities no doubt can make a unique contribution. One big value is that most school buildings do not have facilities for the special education program, nor the personnel for that matter.

One application is found in the MUSE (Mobile Units Supplementing Education) in use in Nebraska. At the time of the report studied, a unit was serving the counties of Saunders, Dodge, Cuming and Burt as a speech therapy unit. The mobile equipment serves about 140 pupils annually with each one obtaining therapy twice a week except during the summer when it is daily. Ten schools, including four parochial schools have been served. One speech therapist is in the unit regularly, though a second therapist is utilized on special details and during the summer. A caution has been voiced that care be taken that "the equipment does not tend to over-influence results of therapy" (K5, 22).

It has been suggested that the equipment would be helpful in areas such as reading, counseling and similar activities that do not require a classroom in a building. Just these very uses have been applied in other places (K5, 21-22).

A diagnostic hearing speech therapy unit is in use in East St. Louis, Illinois. In referring to the mobile lab, the director of the Project Speak said,

> Our Diagnostic Hearing/Speech Therapy Travelab has provided us with much needed space in each school visited for complete linguistic correction and audiometric testing, plus more essential equipment than any of my teachers could possibly carry. Prior to Travelab our situation was very inadequate with unsuitable makeshift classrooms. Teachers assigned to Travelab find all the needs of their program at their fingertips (T25, 3).

Worcester, Massachusetts utilizes a mobile unit in working with its homebound handicapped pupils. It is equipped with portable enrichment equipment for the pupils. The city also operates six mobile reading units which are supplied with the newest in equipment and materials. The emphasis is on compensatory education and thus they work with Target Area schools. In this way a compensatory teacher and aide are available to these schools, along with the necessary equipment and materials to carry on a program of remediation.

During the summer months a diversity of programs is offered in remedial work. Two of the mobile reading labs go to camp to assist the disadvantaged children of the city (W38, 7-8).

The control of ambient noise is a chief reason for wishing a trailer for the audiologists of Spokane, Washington. In this way they could have an acoustically controlled environment for hearing tests. Plans are to have two individual test rooms plus the regular features found in mobile units such as self-contained heating, air-conditioning and lighting. A unique unit construction is used so that it may be transported by truck to each of the 60 schools in the area (S48, 5).

In Utah they have a mobile education office (MOE) as well as a unit for guidance. Migrant education is another field in which units may be used, it has been suggested. This mobile concept no doubt is worthy of consideration when the geography of Utah is noted--mostly mountains and desert. Most of the population of the state is to the east and southeast of the Great Salt Lake. The remainder of the state has a very scattered population that must be served. For instance the MOE unit is stationed in southern Utah where it is sparsely populated (G48, 54-55.

The United States Department of Labor, as of 1967, was operating mobile units in 18 states and 200 counties. The mobile units have a team to coordinate activities in an area without such professional assistance. They may stay for three or four months helping with counseling, testing, doing placement service and similar activities (G48, 56-57). The implications to education are rather obvious for so many of the isolated schools do not have much in the line of counseling and guidance. Where it does exist, all too frequently it is not being handled by professional guidance personnel. The Ehove School District of Milan, Ohio has a vocational guidance truck, which would be similar in some aspects to the use of those by the Department of Labor. New Hampshire has a unit that doubles for employment service, emergency communications and field survey work (G29).

The possibilities in the pupil personnel service field are quite broad. Special services for the benefit of the pupils can frequently be brought to them. Not only do they have the specially trained professionals and paraprofessionals, but the specialized gear required as well as varied materials needed to present the service. No doubt efficiency would be rather high inasmuch as the personnel have a place for everything to be stored, as well as having the specific equipment and materials required right there in the unit. Imagine the consternation of a speech therapist having to maintain facilities in X number of schools that are on the circuit. Specialized equipment would have to be posted in each school even though it was used but a few hours out of the week. In some situations the consultant or teacher, therapist or counselor, could carry the necessary items in the trunk of the automobile.

In brief, note the various uses of mobile equipment in the field of pupil personnel services:

Hearing Cruiser--Dayton, Ohio
Speech and Hearing Survey Truck--Colorado State University
Mobile Employment Service Office--State of Ohio
Reading Lab--Manchester, New Hampshire

Diagnostic Hearing Speech Therapy Lab--E. St. Louis, Illinois

Migrant Education Mobile Unit--Broward County, Florida

The list could continue, of course. Mobile units have proven their worth in many sections of the country when it comes to pupil personnel services.

4. Industrial and vocational education

Generally speaking mobile units would hardly be considered for the fields of industrial and vocational education because of the large use of equipment, much of it very cumbersome and heavy. However, there are some areas in which this avenue has been part of the answer. For instance Warwick, Rhode Island has a mobile industrial arts lab that is utilized in the elementary schools. It is a ten by thirty foot trailer. It is completely equipped for elementary level instruction in the following fields:

woodworking
drafting
electricity
blueprint reading
sheet metal work
etc.

As might be expected the furnishings are connected to the walls of the trailer. Drawers may all be secured for transit. Similar units even have a generator, while others have an umbilical cord with 110/220 volt, three-phase electric connections. As of this writing, the unit costs about $21 000 (T25).

A more sophisticated program is found in New Mexico where a reconditioned military ambulance bus has been made into a mobile classroom for the teaching of electronics. This particular facility is used in Mosquero and Roy, New Mexico, which are 19 miles apart.

A three-hour session is held in the morning and then the instructor drives the 19 miles for an afternoon session of three hours.

Another similar unit is to be housed in a 41-foot semi-trailer and will be used with junior high school pupils in three schools. The semi-trailer has facilities for 24 pupils while the buses have room for 12. Each work station will accommodate four pupils for drafting and electricity. A 12-week time block will be used in each of the three junior high schools. The junior high schools are each within a 20-mile drive of the instructor's home.

One instructor drives 86 miles each day to teach electricity and electronics to 12 pupils in each of three different rural schools in New Mexico. Another similar situation is found in Arizona where a teacher drives a 59-mile route (B60, 74-75).

Not every teacher would be of the nature to be in this type of specialized work, while others would welcome the opportunity to have such variety each day or period. Obviously with these heavy vehicles the instructor would have to be an experienced truck or bus driver. Each school would have to have power outlets, which would not cause undue expense even if they had to be wired.

5. Specialized adult training and in-service education

Baltimore County, Maryland has been conducting a rather unique in-service program based upon funds from Title 111, ESEA. Two large mobile units have been used about the county to instruct teachers in the use of educational media. There has been a total staff of 15 media specialists, all former teachers, who have assisted over 4 000 teachers in 97 public and non-public schools in the county. Even though the three-year project has cost over $900 000, it has been felt that the project has been a good investment. It would be impossible, they feel, to place full-time media specialists in their 149 county schools. Some of the administrative personnel at the county office have felt the units have "caused a mild educational revolution" (M23, 162-164).

Though the above cost appears rather high, the per-teacher cost of the program is $225, which is no more than some single graduate courses at some universities. If these teachers had to be sent to school there would have been the cost of travel, possible per diem for expenses as well as tuition.

Many corporations use mobile units in the training of their personnel. Alcoa Aluminum uses such equipment in the instruction of dealers and salesmen. Incidentally many companies use such units as rolling demonstration stations for patrons. The Atomic Energy Commission has a mobile semi-trailer for radioisotope training laboratory purposes. This is stationed at Oak Ridge, Tennessee (G29). Liberty Mutual Insurance Company has a Decision Driving Center which is housed in a self-propelled van (M19).

The experience of the New Jersey State Police has come interesting lessons and possible applications to regional centers. The police had the normal problems of education that exist so often--unimaginative programs, dull classrooms, lack of audiovisual equipment or proper facilities for optimum use etc.

They studied the situation and came up with several alternate solutions to the dilemma:

Continue use of the current facilities, but institute changes.

Construct new facilities at considerable capital outlay.

Take interim action between the two mentioned approaches.

It was suggested that they consider mobile training facilities. Thus several approaches were studied, such as bus, house trailer, cargo trailer, van or a railroad passenger car. This idea was narrowed to either a bus or a house trailer.

They decided upon the trailer idea for the following reasons:

1. It could be constructed to accommodate 30 men.
2. It could have dual power sources--gasoline generator or plugged-in electric power.
3. It could house an instructional office.
4. It had unlimited possibilities for customizing.

The mobile units that were constructed were 60 feet long, 10 feet wide and 11 feet high with desk seating for 30 trainees. Other features in the units are air-conditioning, heating, dual power source, instructional office and typical items found in a well-designed classroom. The final cost was $16 412,18 ($16 412.18) (C73, 45, 55-56).

A typical classroom as found in an elementary classroom has about 900 square feet with some of them running up to 1 200 square feet. Taking 900 square feet as being most common, the construction cost at $20 per square foot would be $18 000. Now of course the 600 square feet of the police training unit would not be ample for 30 elementary pupils, however, for general comparison the two facilities are quite similar in costs. It should be kept in mind that it is usually easier to get money for a single unit or two rather than for a million-dollar plant. The two situations are not entirely equivalent, but do indicate food for thought.

It is acknowledged that different situations mandate different solutions. In certain places the mobile route is the best, all things considered. In other places such action would be foolish. All factors must be weighed in making the decision as to what route is best for the problem at hand.

6. Media services

One rather common use of mobile facilities is that in television, including educational television. A mobile studio is operated in Darien, Connecticut. KUON-TV of Nebraska Educational Television, operating from the University of Nebraska, has a mobile unit or two. A larger unit is used for coverage of the unicameral legislative sessions and a smaller unit is used at such events as 4H exhibits and similar situations. Of course commercial studios have used these for some time. Movie studios are using on the scene sets with mobile equipment vans (K18, 11; N15).

A reminder has been given by Konick that some of these mobile units cost as high as $50 000 and in addition have high maintenance costs. Some movie units run considerably higher than this. It is necessary to weigh the factors. In some areas the expenses were too much and service had to be curtailed or discontinued altogether (K18, 11).

General audiovisual mobile facilities are used in many places, including Nebraska. One of the units in southeastern Nebraska has a large camper-type truck serving five counties. One of the larger service units has a very large mobile-home type unit which is parked at schools while in use. Cables are run to the school for power to be used for utilities and audiovisual equipment (N17).

Travelab produces a unit that has the following features:

Film inspection area
Record and film storage
Work table
Transparency storage
Turntable and tape deck
Film splicer
Counter area and check out desk
Preview area with screen
Sink
Filmstrip storage

Though not as commodious as a fixed facility might be, yet through careful planning it is surprising what can be built (T25).

Other types of audiovisual units have a different emphasis, such as the ones used in Baltimore County for in-service education of teachers in media instruction (M23, 162-164). Some might be primarily production units while others are radio units such as used by WAUS-FM, Public Radio for Michiana, which is operated by Andrews University. The latter unit is a compact truck, similar to a micro-bus.

The Illinois Valley Library System, headquartered in Peoria, Illinois, is using a bookmobile borrowed from the Illinois State Library for an experimental program. The idea is to provide better access for each member of library to the varied resources of the system. It carries a large collection of new materials from which each librarian may select needed titles to be left in that library for use over a six-month period. In this situation there is a rolling selection-acquisition aid, rather than a book or journal and an order pad (I2, 2). Obviously the real object in question is better than just a description or picture of that item.

One should be reminded that the modern library is not a mere collection of books, but rather a multi-media establishment with all types of media, print and non-print. Many librarians of the "old school" are just becoming acquainted with the new concept.

The mobile type of facility is being used or planned for several phases of the audiovisual and general media field, such as:

1. Audiovisual servicing of an area with films, film strips, etc.
2. Educational and instructional television broadcasting from the field
3. Educational radio broadcasting on the scene
4. Media selection services
5. Audiovisual production facilities on the spot
6. Repair facilities for equipment
7. Film studios and equipment units
8. In-service education in the media field
9. Multi-media instruction facilities
10. Sound recording units for science etc.
11. Language laboratories
12. General instructional materials center

Again, the concept is well established for mobile units are in every section of the country. Panacea for educational woes? No, not entirely, but in many cases it may be the answer. One thing is sure, none but the larger districts or their equivalent can afford to operate such units. It is thus that it is being done cooperatively in many areas.

7. Instructional services

The United States is a country on the move and this is seen in the field of education also, for classrooms are on wheels. Of course these are special-purpose facilities. At times it is for temporary classroom use till a new wing is constructed. In other places the school has grown too rapidly and new rooms are needed quickly.

Among the uses for mobile facilities are those of Great Neck, New York. This school system operates a rolling study center. Southeastern Alabama is served by a transit type truck which tows its own generator behind to be used in the teaching lab In Alaska they have a training lab which travels by ferry boat in the Juneau area (M19). Note the use of such units in the fjord country of Alaska, the economically rich area of New York and the relatively poor areas of Alabama. The concept is universal. The application is universal.

The Funmobile was developed under the sponsorship of the City of Detroit Model Neighborhood Program and is a prototype for a new generation, hopefully, of mobile centers for more effective communication with children. These units are being constructed by

Children's Caravan Incorporated and have motion picture projection facilities and similar accouterments to make an "appropriate environment for the cultural enrichment of children" (C40, 1).

Some of these units have been made by remodeling old school buses and then using them in serving disadvantaged children in five southern states. This program is sponsored by the Office of Economic Opportunity of the United States Government (C40, 1).

Bus type units are being used in the poor areas of Appalachia as classrooms for pre-school education. The program phases are first the television program with instruction for the youngsters; the second phase is the weekly visit of a paraprofessional at the home of the child and third is the traveling classroom with its teacher and teacher's aide.

A typical van unit is 29 feet long (about 10 meters) and weighs 12 500 pounds. It is power steered to make it easier for the ladies to negotiate the 25 000 annual miles over the steep and crooked roads of the Appalachians. This is rugged country and the winters are far from mild with much ice and snow.

These mobile units are equipped with educational toys, recordings and films. They are heated and lighted so as to make them comfortable for the children who are about on the floor and of course the staff undoubtedly appreciate comfortable and efficient facilities.

Two types of mobile units are being suggested for use in this same Appalachian country by one of the cooperative administrators who have seen the values of the system. One of these is a mobile physics laboratory and the other is a mobile diagnostic testing facility, such as used in other areas (D13, 26).

As to the science field, Anoka, Minnesota is using a mobile science laboratory which provides a portable science museum with artifacts and specimens for the use of pupils as well as in the in-service training program for teachers (M51, 5).

Albert Lea, also in Minnesota, has been carrying on a similar program since 1966. They have two forty-foot semi-trailers, two sets of boats and a kitchen trailer. These units serve K-12 (Kindergarten to 12th grade) at all times of the year, including the summer. The program, with accompanying equipment, travels to various sites about the state for archaeological diggings, fossil hunts, geology study, ecology study as well as physical science (M51, 5). As can be noted, the tour is quite self-sufficient.

A space/science traveling unit is used in Webster County, West Virginia for the enrichment of the science program. With this facility each school has the use of a planetarium, which few schools could afford on their own. Prior to this mobile unit, rural areas just did not have such science materials and equipment available. They have found "new high levels of student stimulation and achievement validated by pre-testing and post-testing" (T25, 3).

A different type of mobile classroom is in use in the Portland, Maine area. They use a regular school bus equipped with audiovisual aids and materials geared to the inner city pupil. For instance 107 different sites were toured by the junior high school pupils with pupils obtaining a film preview enroute. The field trips were filmed on 8 mm film, though videotape could have been used. After the trip the pupils could review various aspects of the trip. By the use of films or audiotapes the pupils could be clued-in on factors and interesting features for which to watch (P17, 98).

These are but a few exhibits of mobile units in the instructional programs about the country. There are specific situational programs about the country. There are specific situations in which a mobile facility is the best method of solving the problem. Typically these mobile units are operated by a district or by a region, rarely by an individual school. The cooperative concept is central to planning and operating such units.

8. Health and food services

One very familiar scene across the nation is that of the T.B. X-ray trucks, vans as well as trailers. Within these units are typically found a reception desk with adjacent standing room, storage area and X-ray machine with areas for patient and operator.

Mobile units are used in a great variety of ways, among which are those shown in Table XVII.

Many phases of the medical and dental fields are inter-connected with the educational function. In some cases the local public health office cares for most health matters. In others there is close cooperation with one or the other actually administering the program. A school-run program with little or no correlation is the third category, and probably the least desirable.

TABLE XVII. TYPICAL USES OF MOBILE UNITS IN HEALTH FIELDS

Blood banks
Field surgical unit
Immunization
Multi-phasic screening
Mental health
Pulmonary function
Public health
Speech-Hearing Screening
First aid/rescue
Vision testing
Whole body counter
Mammography
School dental checks
Family planning
Red Cross
Maternal and child care
Narcotics prevention
Peri-Natal
Rural dispensary
School health education
Coronary care
Emergency vehicle
Diagnostic health examination
Research
Dental clinics
Mass chest x-rays (M19, 3)

Not all of the uses of mobile units would be applicable to school programs, though the above list should give an indication of possible uses. It is fully realized that the mobile unit is not a cure-all. However, in many instances it can be the best solution to problem. In this case, some sort of health service must be furnished to the children of the area. How shall it be done? It may be the mobile way is it.

Inasmuch as most health services require water, it should be mentioned that all utilities can be provided to mobile units, including relatively high-pressure water. Electric cables can provide necessary lighting and heating, as well as air-conditioning. Butane or propane tanks can also be utilized for utilities.

Another use of mobile units is that of food service. This may or may not be a critical problem, though this use will be mentioned as an exhibit. The Salvation Army has mobile canteens that are set up during emergencies. The Seventh-day Adventist church operates welfare vans with clothes and food available for emergencies such as tornados, floods and fires. Some units are just for food service. The military utilizes field kitchens and mess facilities to a great degree, just as it does about every other kind of mobile facility.

At Anoka, Minnesota they have a kitchen trailer for use on field expeditions (M51, 5). Scout and Pathfinder youth groups use various types of rigs for transportation as well as storage of supplies, tents, equipment and food. In some units, cooking facilities are available, ranging from rather primitive facilities to rather sophisticated units. Outdoor education programs are a natural for mobile equipment and it is, to some extent, being so utilized. Outdoor education is a field in its infancy in many areas, thus it will be interesting to note growth and the avenues utilized to achieve this growth. Some facilities are permanent, but others no doubt would be better in a traveling pattern.

9. Exhibit and museum services

At most state fairs and at larger county fairs one will generally find semi-trailers or mobile home-type trailers being used by the armed services for recruiting purposes. In them one will find exhibits of the newest in rocketry or weapons. Office facilities are available for the recruiting sargeant or petty officer. Some of them are works of art in audiovisual education, which should cause the educators to note carefully.

While at the fair, one should be aware of the midway, which is entirely mobile. In the earlier days it was by rail but for the most part the carnivals go by truck nowadays. They are virtually self-sustaining with power generators, offices, specially designed units with fold-out floors, partitions etc. Could education learn from this source? For certain applications, particularly for isolated and rural programs, there might be the nucleus of innovation.

The mobile center is being used in various portions of the country. The Bridgeport, Connecticut Museum of Art, Science and Industry has a mobile unit for science exhibits. A similar unit is run by the Franklin Institute of Philadelphia, Pennsylvania. West Chester, New York, Sacramento, California and Nevada have units for live animals. Wisconsin has a mobile unit on newspaper history. Virginia also maintains a mobile unit for art education. The variety is great and interesting, just what is needed in this fast moving age, moving in more ways than one (K18, 11).

One mobile exhibit unit will be described in a bit more detail. Dakotarama is a unique contribution to the dissemination of information and general interest in the heritage of South Dakota. This facility is a 10 foot by 50 foot mobile trailer with its own tractor.

During the three years of its operation, it has served about 65 000 people, which is really quite commendable.

The mobile museum was a cooperative effort from the first. It was commissioned by the State Historical Society for the Dakota Centennial Year. Later the Friends of the Middle Border and the Southeast Educational Service Center took over the pilot project. It appears that the Dakota State College at Madison, South Dakota will now take over its operation.

The unit has a change of displays from time to time. There have been 17 different ones on indians, homesteaders, geology, authors and similar subjects (S40, 19-20).

The exhibit approach is also utilized by industry and business. Many companies have regular rolling exhibit rooms that are taken directly to the potential customer. He is exhibiting his wares for profit while the museum or school is attempting to sell the pupil on education and then follow-through with the goods, namely the knowledge and wisdom needed. When the pupil cannot effectively be transported to the facility, the facility should come to him, via the mobile unit. Where no facility with unique equipment and features is required, just the professional himself can go and fulfill the assignment. With some disciplines this is all that is needed, while in others more is needed in order to do an effective and efficient job. With the new emphasis upon multimedia instruction, even those who did not have much in the line of materials and equipment in the past, are finding it to their advantage to utilize more media.

10. Summary and comment

No doubt when all expenses are added up a mobile facility will cost more to maintain over a period of years than a permanent facility. This would be particularly true if it is motorized and less so if it be but a trailing unit. Yet in virtually every conceivable field mobile units are in operation. Note the following:

Libraries: bookmobiles
Business: accounting cars
Television: field station
Church: welfare van
Military: field repair
Navy: submarine support
Food: field kitchens
Health: clinics & x-ray
Schools: mobile classrooms
Museums: rolling collections
Municipality: field survey truck
Law enforcement: training trailer
Space: Quarrantine trailer
Public health: immunization
Special education: handicapped lab
Audiovisual: materials center
Telephone: repair and maintenance
Sanitation: water pollution lab

The list could continue. Medicoach, one of the manufacturers of mobile equipment, has equipment in operation in 85 different countries of the world (M19, 2). The idea is well grounded and proven in value for certain projects and applications. In many situations a permanent location will not suffice and this then necessitates innovative thinking. The writer has even gone mobile as a solution to his media problems and has actually found it lower in cost than a comparable permanent unit. This is not given as being typical but as a balance in thinking. Just because it is mobile, it does not follow that it will be extravagant in cost and operation.

Mobile solutions have been used for some time in the educational and allied fields. In most of the service fields of an educational service center, a mobile facility has been used to advantage in some locality, for certain applications. Special education has used such units in speech therapy, work with handicapped children and remedial reading. Media have used bookmobiles, audiovisual media vans and acquisitions-selection mobile units etc. Health services have been used in x-ray screening, clinics, immunization clinics and similar applications. Pupil services have used counseling and guidance units. Administration and professional personnel have been served by mobile in-service education units, research and survey units and accounting services.

The mobile approach to services has been proven. Regional educational service centers should investigate this avenue of service to the region. Obviously it would not be used exclusively, but could conceivably be a facet of the total program of service.

CHAPTER 14

LIBRARY PROGRAMS

1. The library in regional educational service centers

Though the majority of regional educational service centers do not emphasize the print phases, yet some do. No doubt the larger consolidated schools can more readily offer ample library services, though even here certain regional services such as in technical processing, pool purchasing etc. are used. Inasmuch as most Seventh-day Adventist schools are relatively weak in library holdings and do have a definite need for improvement, it is felt that many library related services might be considered in the regional/cooperative concept. As will be noted, many of the exhibits presented are for library cooperatives, rather than library components of R.E.S.C. units, however, it should be noted that the concepts are very similar and are worthy of study.

Educational media services typically are at the heart of regional educational service centers. Inasmuch as audiovisuals are generally kept separate in such units, they are discussed in separate chapters from the library or print materials area.

The reader should be reminded that regional educational service centers are early in their growth cycle. The study of what has been done in the R.E.S.C. is but part of the study. Many other regional/ cooperative programs can be adapted or adopted even though the initial idea came from another source. To confine thinking to what has been done without extending the scope would be narrow and rather sterile. Library cooperatives are first cousins, as it were, to the R.E.S.C. and give every indication of having much to offer the R.E.S.C.

Though telecommunications have been strong, the library and its components have enjoyed renewed interest. However, with this interest has come a multitude of problems, some of which are pertinent to the discussion of this paper.

A committee in southeastern Wisconsin identified nine major factors which indicated the need to think of the provision of library services as more than just a local problem. The day of parochial thinking is coming to a close, many feel, in most fields, including library services. A broader line of thinking is required. The factors identified are:

1. Rapidly increasing use of library facilities and services.
2. Rapidly changing library service areas.
3. Rapidly increasing types and quantities of library materials.
4. Rapidly increasing demand for a wider variety of library services.
5. Impact of rapidly changing technology on library facilities and services.
6. Aging of existing library facilities.
7. Shortage of qualified staff.
8. Rising cost of library facilities and services.
9. Lack of region-wide interlibrary cooperation (S41, 9).

Some libraries are so busy that patrons virtually have to wait in line to obtain a study table or to listen to some records. The need for library facilities has been of sufficient scope to cause one company to offer temporary mobile units that are entirely equipped with furnishings and books, cataloged and processed (B45). This gives a virtual "instant" library. This is a very real problem in those areas that are growing by leaps and bounds.

In the past a library was primarily an institution that had books and periodicals. In progressive areas, this time no longer is. The Marquette Mall branch of the Michigan City, Indiana library is located in a shopping center. Aside from books, they have 8-mm films, 8-track cartridges, paperbacks and many other types of media. The Elkhart, Indiana library has a variety of media also; in addition, common to many other libraries about the land, it has a collection of paintings that may be borrowed. The McHenry Library, the public library of Modesto, California, has 16-mm films available to its patrons. The collection is changed monthly, just as it is in scores of libraries across the land, such as Benton Harbor, Michigan. By cooperating with others, a variety is available to the local patrons.

An example of the variety of materials that may be obtained at a library today, is that of the James White Library at Andrews University in Michigan (See Table XVIII).

In addition, the following services are available:

1. Inter-library loan to the State Library and associated libraries giving a total potential of millions of volumes.
2. Three types of photo-copying machines: electrostatic, thermal and dry-photo.
3. Microfilm, microfiche and ultrafiche readers, micro-opaque, as well as microfilm and microfiche reader-printers.
4. Dubbing facilities for record to tape, record to cassette, tape to cassette, and cassette to tape.

TABLE XVIII. TYPES OF MATERIALS AVAILABLE IN THE
JAMES WHITE LIBRARY

Books, as usual
Periodicals, of course
Microforms
Transparencies
Phonograph records
Flash cards
Manuscripts
Teaching aids
Maps
Pamphlets
Pictures
Filmstrips
Games
Tapes
Posters
Specimens
Stock reports
Catalogs
Pattern books
Slides
Models
Cassettes
Charts

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5. Consultancy services for theses and projects, as well as other papers.
6. Rare-book room with original source materials dating back hundreds of years in some instances.
7. Archaeology museum specializing in artifacts of the Middle East, Rome and Greece.
8. Via the audiovisual service area, various production facilities are available.

With this increase in materials, services and shear quantity of print and non-print media, the costs increase at an astronomical rate.

The increments in technology affect the library also. For instance a reader-printer for microforms currently costs well over $1 200 and some models run much higher than this. A recent breakthrough in price for a retrieval unit that will handle 75 000 pages of microfiched material has been made by one company. The document can be placed on the screen of the unit within four seconds after the key letters have been punched into the machine. All this is available for about $5 000 in a machine that can be placed on an office desk! (R7).

Another relatively small improvement--at a cost--is that of the electric typewriter. Some years back a standard typewriter would suffice but now electrics are common. The regular unit runs a couple hundred dollars where an electric will run $500 plus. This is better than double in cost. True, it is probably quicker and gives a nicer copy, but nevertheless the financial outlay and upkeep are higher.

Photocopy machines as used in libraries run from $200 up into the thousands of dollars. In fact many electrostatic copiers, which are common in larger libraries, are typically leased because of the heavy financial outlay and the rapid obsolescence. When under the lease a repair warranty is usually in effect, which is probably worthwhile considering the relatively frequent mechanical breakdowns.

The above recitation is evidence of the increased costs involved because of the advance of technology. Computer cataloging, specialized enlarging photocopying machines, microfiche proof slip systems and a host of other advances would add further dollars, and no doubt certain long-run economies in some cases, but nonetheless these advances do not come for nothing (S41, 9).

Facility costs are rising also. In addition many of the cities are finding it necessary to replace the old Carnegie buildings which have outlived their usefulness. This is in addition to the branch libraries that are being built in the suburban areas, the acquiring of bookmobiles and the costs mentioned in equipment. The building construction costs appear to be rising faster than the general costs in this country. In some areas, probably most, real estate costs are rising thus sites cost more for the taxpayers or private groups who operate the library.

In each of these situations there is a burden placed upon the board and the administration. In most cases the situation is one that exists and not much can be done to change it. It then behooves the board and administration to find means of solving the problems. Obviously this paper cannot propose to solve the problems in toto, nor can it report on the problem comprehensively. However, some of the promising practices that either currently involve regional or cooperative approaches or might in the future be applicable, are reported.

2. Inter-library loans

One of the approaches being used in many parts of the nation is that of the inter-library loan program. Rules and regulations vary from place to place, but in general the concept is based on the sharing of library resources. One example is that of the Interloan Access Office of Michigan. Its purpose is to

> . . . provide materials for faculty, graduate and undergraduate students and others engaged in serious study whose needs cannot be satisfied at the local level. It is to supplement and complement rather than to duplicate or compete. The office's function is to receive requests, search, locate and mail materials (either in original or photocopied form) directly to the local library (M35).

The Access Office is located at the University of Michigan at Ann Arbor in the eastern portion of the state. Among the resources are the million volume plus state library at Lansing, as well as Michigan State University, Wayne State University and the Detroit Public Library.

This same general pattern could be repeated scores of times over. Again, in Michigan, it is possible for a young student or user of the local public library to obtain added help via this concept. The user contacts his local public or school library and if the material requested is not available, the librarian will phone to a local regional center where it will be relayed via long-distance telephone to the State Library in Lansing. In the case of Berrien County in the southwestern portion of the state, calls are made to Lake Michigan College and thence sent via "Hot Line" to Lansing. The State Library contains many special collections such as Michigan History, state-wide newspapers on microfilm, government documents etc. If they cannot send the item desired, they will photostat up to 50 pages at no cost to the patron.

Michigan's State Library, as with many others, has a rotating collection that goes to penal institutions. They also have a collection for the blind and those with poor vision. Many of these services can only be provided by either a huge collection or by cooperation.

A branch of the State Library is located on the Upper Peninsula at Escanaba. Thirty-five "system headquarters" are located about the state along with the community colleges which in turn are connected by "Hot Line" (M29, 1; M28).

3. Union catalogs

Theological seminaries not only are cooperating in inter-library loans, but aid each other in this by maintaining a union catalog. The seminaries in the Bay Area of California have such an arrangement. A book catalog is utilized by the seminaries of the Boston, Massachusetts area (C75).

Without doubt the implementation of computer cataloging and book catalogs has done much to make resources more available to more patrons. From its inception the computer cataloging process depends upon a cooperative concept. MARC tapes are used as a base in several of the commercial computer cataloging companies. This gives millions of titles to be retrieved readily. In addition when new collections are added, the same basic format is utilized in the input thus giving literally millions of more bibliographic entries. In this fashion it is possible for the local library to gain bibliographic data via the computer, thus saving original cataloging time and consequently save dollars.

Commercial companies can often catalog items at considerably below that done locally. By making available a book catalog of a particular library's holdings, it is possible to increase the use of that material, not only locally among the components of the school or community, but among member libraries of a cooperative or those with a loose agreement on inter-library loans.

An indication of the value to a library of not only cataloging but also of the greater use of materials is found in a price quotation given by the Xerox company for cataloging and printing of a book catalog. This particular quote was for a primarily audiovisual collection, though it included several thousand books also. For a total of about 12 000 items the company would charge a bit less than one dollar per title. This quote was given on the assumption that most titles would already be in the computer data bank and yet allowing for some titles that would require original cataloging. This cost included 100 copies of a book catalog to be distributed as the library saw fit (X1).

Additions are typed in a specified form and sent to the company, whereupon cards are returned within a week or two to be placed in the temporary or interim file. Whenever the library wishes, a supplement is prepared and printed and then distributed as before. Periodically, possibly every five or ten years, a complete new catalog is prepared at about 50¢ per title of media already on the computer tapes and approximately one dollar per title for new media titles. For this figure a new catalog is printed, replacing the original book and the quarterly, semi-annual or annual supplements.

By having book catalogs available, the member libraries or regional centers can readily have record of what is available. Of course it is possible to have a union catalog utilizing standard 3 x 5 inch cards, with a duplicate set at each library or just one main catalog at a centralized location (X1).

3. State libraries

The Michigan State Library has already been mentioned in regard to its Hot Line program in which it acts as a service agency for the entire state. It also acts as a clearinghouse in obtaining information from large libraries at the state universities.

The Michigan library also serves the penal institutions with rotating collections, an idea which holds promise to schools in isolated areas. In addition its special collection and services for those with vision problems could be duplicated in many portions of the land.

The state library is also a depository for federal government publications, which number into the tens of thousands. A special law library is available, primarily for legislators in the state capitol. Newspapers from about the state are microfilmed at the library and stored on 35 mm spools in metal cabinets. This is a storehouse of historical material available to researchers from all areas (M29; M28; M42).

Another example of a state library is that of Pennsylvania. The capital is in Harrisburg and it is here that the library is located. The state library has two major functions: first, it is to provide library services to the state government, which in practice is assistance to any state resident. Secondly, it is to "coordinate a statewide system of local libraries, district library centers and regional resource centers" (P14, 3).

The district libraries are located in major metropolitan areas and act as consultants to smaller libraries in the area as well as make loan arrangements for these smaller units. The district library is a library of some size, as might be expected.

The regional resource center is charged with the development of "comprehensive sets of materials in a number of special subject areas" (P14, 3). There are four of these regional centers within the state: Philadelphia, Pittsburgh, Harrisburg and University Park. The first two of these are the largest cities, Philadelphia in the east, Pittsburgh in the west. Harrisburg is the state capital and is east of the mountains. University Park is the location of Pennsylvania State University and a logical location for such a resource center.

The law allows up to 30 district library centers, which is a reasonable figure when it is considered it is a rather large state and has many cities of size. In addition to these facilities, 40 out of the state's 67 counties have law libraries for the legal profession (P14).

Without doubt the state is in a prime position to initiate coordination and cooperation among libraries. Left to local initiative, the answer is all too often one of little accomplishment.

4. The school district library

In some areas a school district library is maintained but it is declining in importance. Kikpela gives a good summary of its current status.

> At the present time, the school district library is still of major importance in only two states--Delaware and Ohio--and lesser importance in two other states--Michigan and New York. In the remaining forty-six states, the school district library is almost non-existent. Where it does exist, it is largely a relic of the past. Nine major cities, and ten, if Detroit is included, still maintain school district libraries. In six of these cities, the

> school board administers not only the school system but also the public library. In the remaining four cities, there is a separate library board appointed by the school board (K9, 11).

The local public libraries, in most places, now carry the responsibilities of maintaining a balanced collection of books for the citizenry. Local school libraries are increasing more and more. Though high schools have had libraries, for the most part, the elementary schools have been devoid of centralized collections till rather recently. As these libraries grow into respectable units in their own right, the necessity of a district library disappears.

As with virtually all states, California has had to impelement some intermediate measures in order to bolster service where weaknesses appear. It is thus that the district library center does exist in some places. It lies midway between the classroom book collection adn the centralized building library in its function. Though it is not regional, it does have regional implications where poor or isolated schools are concenred.

> The cost of this type of center is not as great as the cost of building libraries, but neither is its service to teachers and children as good. District library center service is similar to that provided to small rural schools by offices of county superintendents of schools; it is not recommended as more than a stop-gap measure for schools too small or districts too impoverished to afford adequate library services (H1, 154).

In this definition of the district library, it is actually serving basically as a supplementary collection. As with most viewpoints on media centers, the aim is to have the media, whether print or non-print, as close as possible to the ultimate user. Of course when it comes to reality and practice, much depends upon funds. The application of this principle will vary from locale to locale.

In another sense, the district library may serve in another capacity. This capacity will no doubt be similar to that of many regional centers, depending upon the geographical location and the organizational structure. The program in the Skokie, Illinois school district number 68 has several aspects worthy of note:

1. It opened four new school libraries and staffed them.
2. It centralized all printed materials and acquired new items.
3. It centralized ordering, cataloging and processing.
4. It centralized and inter-related all audiovisual and other non-print materials.
5. It created one-stop materials service for pupils and teachers.
6. It organized district materials centers for various curriculum areas, which are loaned for short supplementary use in the schools.
7. It cross-cataloged materials available.
8. It centralized inventory, control, distribution of texts and supplementary materials.
9. The district professional library implemented rotating collections.
10. It provided listening and viewing facilities at the district center (G4, 44).

The place of the district library varies from place to place, though it is generally conceded that it should be supplementary when it comes to furnishing media per se. The district library, in its modern function, is a coordinating body, a consultant service, a supplementary media center, a centralized technical services unit, and an administrative unit. Yet, in many localities it must provide some rather basic media services to isolated or poor areas (H28, 137-138).

5. Public library programs

Almost all cities and towns of any size have their public library. Even towns of only several thousands of inhabitants have very creditable collections, in many instances. Upon further investigation it is noted that many of these small libraries have what they have to offer because of cooperative action, possibly with the county or a regional system, maybe the state library.

The Prince George's County Memorial Library System serves a suburban portion of the Nation's capital. The system operates 15 libraries and four bookmobiles. Those holding one of the system's cards may use it in the Metropolitan Maryland Library Service as well as the Maryland Public Library Service, thus giving the patron access to most books of the state (P52).

Among the values of inter-library loans, multiple use of library cards in various libraries, regional libraries, library cooperatives and union catalogs is the access to unique collections such as the one on Consumer Cooperatives in Prince George's County or the 101 special collections here and there. A day hardly passes that the writer does not hear some comment regarding the dissemination of information regarding availability of certain items as well as the accompanying correlative of accessability or cooperation on some facet of the media field.

Another program that is integrated is that of the Baltimore County Library System which includes the area about the City of Baltimore but does not include the Enoch Pratt Library System of the city. There is some reciprocity among seven metropolitan counties and Baltimore City. In 1968 this reciprocity was extended state-wide in scope and coverage.

The basic county system extends from the Chesapeake Bay in the south to the Pennsylvania state line in the north. In 1972 the system comprised 19 branches plus mobile units operating in areas without branch service (B3). The evidence in Maryland as well as other sectors of the nation is increased cooperation, not less.

There are numerous cooperative library programs about the state of Illinois. Among these is the Cumberland Trail Library System which is organized as independent public libraries working together to improve the program of library services within the twelve counties of southeastern Illinois. Each library maintains its autonomy but yet cooperates for mutual advantages that are gained by such action.

They cite a chief advantage of the system as the ability of a small library to achieve "standards beyond the reach of any individual library, because the entire book collection and financial resources of the system are at its disposal" (C74, 1). The system is financed by the state though the board of directors is composed of representatives of each member library. Each library maintains its own independence (C74, 1).

Another of the 18 public library systems of the state is the Corn Belt Library System based in Bloomington, Illinois (B11, 314).

In addition to varied cooperative services in the book collection, they have centralized purchasing and processing of books. Newspapers and periodicals may be borrowed throughout the system. Duplicate copy material is available of any materials listed in the Reader's Guide to Periodical Literature, as well as many other journals and magazines that are not so listed (C68, 1).

The diversity of library resources in just one state is rather interesting. For instance there are 504 public libraries in Illinois. In addition many of these belong to one of the 18 library systems. Four Reference and Research Centers are located in the state. There are 5 823 school libraries, 144 academic libraries and 400 special libraries (B11, 314). Yet within the various libraries that are operated by the various governmental agencies there is little cooperation. Public libraries are under the jurisdiction of the State Library. Each state agency has its own libraries, such as the Department of Corrections, Department of Mental Health, Board of Higher Education, Office of the Superintendent of Public Instruction and the Junior College Board (B38, 337-338). The implications of such a program to the R.E.S.C. are obvious when it comes to duplication of effort and unnecessary financial outlays.

One other public library program should be mentioned in that it is attacking the problems from a regional basis. "Public library planning has become a regional problem rather than a purely local one" says the coordinator of the Southeastern Wisconsin Regional Library Planning Program (J1, 99).

The seven counties involved in this planning program comprise less than five per cent of the state's area but their libraries constitute 46 per cent of the library holdings. There are 153 governing bodies involved in this region, which is a sizable number of bodies to persuade to cooperate on an issue. In this case the book collections total over 3 000 000 volumes. One cannot but wonder as to the quantity of seldom read but useful books that are duplicated on the shelves in the region.

The regional program for this section of the state of Wisconsin is primarily for public libraries, yet the planners realize that all libraries, including the school and special libraries, are involved. They found 994 different elementary and secondary schools within the area with 657 of these having central collections. The breakdown is as follows:

49 public libraries with 27 branches and mobile units
40 institutions of higher learning
657 secondary and elementary central libraries
173 special libraries (J1, 99-101; S41, 18-24).

The resources available in the Milwaukee area are formidable. Yet with the 3 000 000 volumes who knows who has what within the walls of the 946 libraries in the area? No doubt it would not be feasible nor practical for there to be a complete union catalog of the region's holdings at this juncture in history; however, there are possible avenues of cooperation and these are being explored.

The prior illustrations of cooperative activities are but samples of what is being done in the public library field. Again the concept of cooperation and/or regional programs for the mutual betterment of the area is found. In some regions it is well established while in others it is in its infancy. As the literature of the field is perused it is quite obvious that it is a growing concept.

6. Cooperative programs among school libraries

It is rather difficult to discuss this section inasmuch as a pure school library, in the traditional sense, is not common in this age. The multimedia approach to media is found more and more in the progressive areas. A library with just books, newspapers and periodicals is becoming more rare. This is particularly true in libraries that are cooperating or working within a regional framework. There seems to be a tendency for those centers that have accepted one major innovative idea to accept other innovative ideas. An Illinois study appears to bear this tendency out (R11).

Though much of this section could be placed in the section with audiovisual services, some examples will be presented in order to present a more cohesive presentation. The most populous section of Michigan is in the southeastern section of the state, which includes Wayne and Oakland Counties. These counties include the cities of Detroit and Pontiac as well as numerous other cities and towns, with a total of 73 communities. These two counties operate libraries or otherwise provide library services at 53 locations. In addition five other institutions are served. County-wide services are offered to the blind and physically handicapped. Film and audiovisual service is given to community and schools. Contract service is given in Oakland County Public Libraries and in the school districts of Wayne County to the south. These services range from book ordering to complete operation of the library (W10, 1).

The regional media center for Oakland County in Pontiac is considered one of the better centers in the nation. It is located in the county education offices within a complex of neighboring county government buildings. The education building is four floors in height and ultra modern in design. The media center comprises the entire second floor. As one enters the second floor one finds the audiovisual phases of media to the left and the print forms to the right. Each area is quite complete in its facilities, offices and circulation area. The "library" section houses regular books as used in schools, as well as textbooks and curriculum library materials. A complete ERIC microfiche collection is housed there as well as a vocational education microfiche collection. Microform readers are available adjacent to the microfiche files.

The obvious correlation of the print and nonprint areas is in keeping with most thinking of the day. Some feel it should be integrated entirely while others feel they should be directly correlated with the two phases being equals (A16; O1).

A similar centralized center is that found in Sonoma County, California, which is about an hour and a half drive north of San Francisco. Sonoma County is quite typical of many of the counties of California. It should be remembered that many western counties are larger than midwestern and eastern counties, thus what might be a region in the east would be but a county unit in the west. Again, note that regions for one type of service might be of a different size than those for certain other types of service.

The Sonoma County Center is similar to the one described in Pontiac, Michigan, in that it is located in a major city of the area. It is also located within a county complex, with ample parking and a facility that is spacious. Both centers are located adjacent to major highways, thus making them easily accessable.

Sonoma County, however, is primarily a rural county, although Santa Rosa, the county seat, has 50 000 people. Pontiac has a population of about 85 000 and is within a 30 minute drive of Detroit with the area between being built-up with dozens of housing projects and towns to a great degree, thus giving an urban posture to the area (U3, 514). Sonoma County is comprised of hills and valleys. Some of the roads are quite mountainous and crooked. Oakland County is virtually flat though it does have relatively severe winter road conditions to its debit. In addition, Sonoma County is considerably larger in area than Oakland County.

The Sonoma County center is definitely multi-media, also. The typical type of audiovisual media is found in the collection. They have repair facilities for A.V. equipment as well as equipment for loan. A professional library for educators is found at the center. A service available at the center which is not found in all media centers, is that of the supplementary text and book collection. Multiple copies of a wide assortment of books are available to the schools of the area (S38).

The two examples rendered might be considered as typical of regional or intermediate type library cooperative programs. These are typical of progressive centers and also are typical of the new approach to libraries, namely that they are multimedia in nature.

7. Special purposes libraries

The area of special purpose libraries should be of particular interest to one interested in cooperative ventures inasmuch as the type of materials or services are such that cooperation is almost a necessity because of the uniqueness of the facility and the general broad service area.

From a practical viewpoint as well as from an economic standpoint not all collections of libraries can include all items of value within a given field. Specialized collections have been increasing in various portions of the country. The vast medical library in the Washington, D.C. area makes its services available nationally to those within the field of medicine as well as the paramedical fields where appropriate. Another special service library with tens of thousands of volumes is the Civil Service library in Washington which specializes in public administration, law and allied fields. Illustrations could be given by the hundreds, if not thousands. At this time it is not feasible; however, it should be noted that these collections are managed by public, private, commercial or institutional parties.

The special library may be a cooperative venture directly or it may be indirect in that users contract for services, pay a fee or possibly receive services gratis. Obviously if it is publicly operated, taxes have paid the cost, and in the final analysis, our government is a cooperative venture in the ultimate sense.

In some sectors, various libraries have specialized in certain areas by prearranged plan. In some circumstances the library has already established itself within a certain specialization and then has built-up this area. The Pennsylvania State Library system has operated in certain areas in this fashion (P14).

The General Conference of Seventh-day Adventist Department of Education has asked each of the collegiate institutions within the North American Division to specialize in a certain area in its curriculum library. Inasmuch as Andrews University has a graduate theological seminary with its accompanying media resources and personnel, it was assigned religious education. Loma Linda University has a medical school, dental school, school of public health and other medical fields represented in other schools, thus health education would be a natural area for their curriculum library on the La Sierra campus.

Each of the institutions specializes in a particular field and collects and disseminates accordingly. As with any cooperative venture, certain preogatives are sacrificed for the mutual good of all concerned. Though it would be ideal for each school and its surrounding area to be served with all the good materials in all fields, it is not feasible nor practical. Therefore it is agreed that each shall work on a particular field and inform the others of what has been found of worth and possibly circulate such (N23).

Another rather specialized service is that of library service for extension education or external studies. That which is being done for this field has implications of possible importance to the rural or isolated school as well as the small private school in an urban setting, which does involve regional programs, directly or indirectly.

Students or pupils usually purchase their textbooks, either through a local supplier or by mail. Obviously the pupil cannot purchase all the books needed in the study of the particular subject being pursued. In some cases he may live near a large public or institutional library. However, what happens if the pupil is living in northern Idaho or western Texas? In other situations classes are being taught in a local community by the state university. In this case, there is still need for media resources and these must either be supplied locally or by some other means.

The Association of College and Research Libraries has given some guidelines to extension services, for even though it is ideal to have all that is needed in every place, it is not practical. The guidelines are:

1. Library services for extension purposes should be financed on a regular basis.
2. A professional librarian should be given specific responsibility for handling library materials and services for extension classes.
3. Before approving the teaching of a course off campus, the appropriate officer in the extension division, the instructor,

and the librarian in charge of library materials and services should consider jointly what the library needs are for the course and the extent to which these can be supported locally and through the university library.

4. Special attention should be given to the availability of library resources taught at the graduate level.
5. The use of the university library should be encouraged and, where feasible, required (A51, 52-53).

Extension work on the secondary or elementary level would be very similar, apart from the level and difficulty of materials involved. As has been noted previously, extension work as well as correspondence work is becoming quite important in some areas. This external and extension work is found on all levels.

With all of this extension work and external study, there must be a back-up facility in resources. State libraries, such as the one in Lansing, Michigan, are also acting as supplementary library centers for the use of those in outlying areas where library resources are not amply covered in various areas (M29: M35).

It is very possible that this type of study will become more common-place with the greater emphasis upon self-directed study. Earlier in this paper mention was made of individualized instruction, non-graded classrooms, audio-tutorial learning, flexible scheduling and similar educational movements now in action. The great boost in media as a whole, and more particularly in the audiovisual phases of media, is having a greater effect on self-directed learning also.

No doubt these innovative programs are having a great impact upon education. The library definitely is becoming a more important part of the educative process, not only at the ordinary, orthodox school around the corner, but within extension and external education. As noted the regional educational service center may include these library services in its program.

8. Summary and comment

A cursory examination will make it quite evident that the library is playing an ever increasing role in education. As the function of the library becomes more sophisticated and comprehensive, the finances tend to become more acute. Because of this squeeze action libraries are more and more cooperating together in various ways and on different organizational levels.

The role of the library is passing from a strictly print function to a multimedia concept of operation and services offered. On many campuses the library is literally at the very hub of activity. However, with this increased importance, problems increase in supplying ample materials, making space for the rapidly increasing collections as well as the audiovisual functions, of maintaining sufficient control over technical processes and the added need for communication of what the resources are in various fields.

These and a host of similar problems have forced many libraries to find ways of coping with the situation. One promising approach is that of cooperative programs. Cooperative programs at times are but professional associations with programs being geared primarily to in-service improvement. No doubt these serve a useful function. In other cases it involves inter-library loans, ranging from "on-demand" programs to inter-changeable and rotating collections. Cooperative technical processing including acquisitioning, ordering, cataloging and accessioning, are also involved in some systems.

The concept is also found in library systems for entire counties or groups of counties. The degree of cooperation varies, again, from loose confederations to rigidly operated systems. Others give contract services to public or school libraries.

Regional and state libraries offer specialized services, such as long-distance telephone connections running directly between member libraries, delivery services, inter-library loans and similar such services. Other libraries are structured to specialize in some facet or subject area which each separate library would not find advisable or practical to stock in quantity on its own.

Though it is quite obvious that cooperative programs between and among libraries are not the panacea for all of the library world's problems, it is also evident that regional programs and other types of cooperation can do and are doing much to alleviate such problems as the deluge of media and its accompanying technical processing. It is helping to solve part of the problems of personnel utilization and fuller utilization of all media.

As the library field becomes more multimedia in concept, the regional programs take on even more meaning inasmuch as much of the audiovisual material is rather high in cost. Certain types of equipment are costly to obtain and to maintain. By cooperative arrangements these costs can be trimmed and brought into a realistic situation.

The cooperative programs also take on more meaning as the information retrieval field expands even further. Microforms, computer storage systems, telecommunication systems and similar advances in technology are bringing in a form quite different from the conventional library of yesteryear. In order for it to keep up with the times, it requires each library to move into the new age of information retrieval, whether it be electronic, optical or print. Many feel that it is necessary to work together in order to utilize these new forms to their fullest. Many also feel that coooperative ventures are also fruitful in carrying out the more conventional aspects of the library function as seen in Centerville or Middletown.

CHAPTER 15

LIBRARY SERVICES

1. Types of services rendered

As might be expected, the types of services offered by the regional library (or component of a R.E.S.C.) will vary considerably from place to place. In some instances the library is structured primarily to serve the member public libraries while in other instances it is geared to the school library, or in some cases it serves both groups (D21).

The St. Clair County Library of eastern Michigan might be taken as an example of a system that has quite an extensive array of services. The following list gives evidence of much variety:

TABLE XIX. SERVICES OF THE ST. CLAIR COUNTY LIBRARY, MICHIGAN

1. centralized book selection
2. bibliographies
3. central ordering
4. central cataloging
5. central processing
6. centralized reference service
7. pool collections of books, records etc.
8. delivery service
9. weeding service
10. interlibrary loans
11. in-service training
12. duplicating service
13. mimeographing
14. custom-made posters, signs
15. laminating (S1, 2)

For purposes of the discussion in this chapter, numbers 12 through 15 will be listed in the chapter on audiovisual services. This list again points out the multimedia concept of libraries that now exists. In some areas it is almost an artificial distinction when speaking of the non-print and print phases of media in that the idea is so integrated. On the other hand, in some sectors the distinction is obvious with the librarians and audiovisual specialists hardly on speaking terms. Such situations are lamentable, obviously. Fortunately the literature indicates that the correlated approach is more common, particularly so in school libraries and regional centers.

The Cumberland Trail Library System in Illinois also lists rotating book collections, publicity, telephone reference services as well as professional consultation and advisory services (C74, 1).

The libraries in the metropolitan St. Louis, Missouri area, which includes the area across the Mississippi River in Illinois, are cooperating in several areas.

> Cooperative activities which have been instituted are reciprocal faculty borrowing among academic institutions and a personnel placement information service. Under discussion is a MARC processing center, a regional inter-library loan code, a delivery service, and a survey of staff utilization (B38, 337).

The cooperative meetings with the librarians, in which these activities have been discussed and to a limited degree been initiated, were under the auspices of the Higher Education Coordinating Council of the Greater St. Louis Area, an academic consortium (B38, 337).

Another facet of this program is that this cooperative venture crossed state lines. This is also true in the Quincy, Illinois area where portions of Missouri and Iowa are involved. A similar situation exists at the Quad Cities: Rock Island, Moline, East Moline, Illinois and then across the river in Davenport, Iowa (B38, 337). Without doubt many other metropolitan areas cross state boundaries and in some instances, even international boundaries. Cooperation must exist for the solution of various problems that are mutual in extent. Examples of this are the areas about Detroit and Windsor, Niagara Falls, Vancouver and Bellingham or, on the southern border, Tijuana and the communities of Calexico and Mexicali as well as others.

Where there is a common area, there are common problems and this does not except library services.

2. Acquisitions and ordering

Many libraries about the country do not carry out the acquisition process independently. In other cases the library itself does its own selection but does the ordering centrally in order to avail itself of quantity discounts, which can be quite substantial in many cases. In some systems the entire technical processes procedure is centrally accomplished and the branches merely put the cataloged books on the shelves.

Cooperative programs take various forms in the acquisitions phase of library work. It is rather difficult, at times, to separate the acquisitions and ordering work from the total technical processes field, thus there will be some mention of other phases in the discussion. Such is the case in the seven library cooperatives in southern California. This group is involved in the LISTS project

(Library Information Time Sharing). This project is to assess the feasibility, economics and practicality of a time sharing, library automation program. It is felt that various libraries, both large and small, can utilize the computer for technical processes. They can be used in the acquisition of monographs, reports on budgets, prevention of duplicate orders, file access of various alphabet sequences, series control for acquisitions, reports on serials, wants, receipts and other records (B33, 121-126). In addition cataloging routines would be involved as well as circulation procedures.

The Newark, New Jersey Public Schools offer many of the commonly known services, such as audiovisual production, textbook collections, teaching materials and a professional library. In addition they offer services of note. They compile an inventory of all books in the Newark Public School, thus forestalling the purchase of needless duplicates and making available knowledge of weak areas in the collections.

All book and periodical orders go through the central office, thus allowing further economies in price structure. The school office also offers a price list of texts, maps and educational supplies, thus allowing more intelligent purchasing (B48, 295-296).

Becker gives the following recommendations "as a means of improving present practices in the acquisition and distribution of materials by the regional centers":

1. All member districts should actively participate in all phases of acquisition procedures. This should become a major administrative responsibility shared by the director and the county school officials of the area served by the regional centers.

2. Member district participation in acquisition procedures should be directed toward assurance that materials purchased are (1) representative of teachers' needs, (2) closely correlated with local curriculum objectives, and (3) representative of technical productive excellence.
3. Directors of the regional center should assume the responsibility of instructional evaluation personnel in the performance of their duties.
4. Evaluation duties should become a recognized responsibility of selected personnel, with time allotted for performance of this duty.
5. The regional centers should assume an active role in the establishment of intra-district procedures allied to regional center functions.
6. Regional centers should encourage the practice of teachers ordering materials within two weeks of intended usage.
7. Regional centers should investigate the possibility of member districts transporting materials in place of operating a delivery service (B12, 3-4).

Some of the literature has noted the problems of largeness, bureaucracy and the general situation whereby a local school gets lost in the operation. This is true in the acquisitions process. The local media specialist, audiovisual specialist or librarian feels that his word has no impact on the selection procedures, for this is done in the head office by somebody in the "upper eschelon." It should be pointed out that this criticism is one of the more common ones, not only in the acquisitions process but in other phases of the regional operation or any other organization that gets too large and loses contact with the local personnel.

Though these items appear as minor, possibly, yet they are symptomatic of internal dissatisfactions which can ruin a regional program. One of the arguments heard often in Nebraska, for instance, is that the local schools are close to the pupils and the patrons and thus better fill the needs. The argument continues, generally, that the large units have been found to be productive of problems such as found in the inner cities where the depersonalization process has reached its zenith. No doubt a case could be made on many of these issues.

Whether these or other similar arguments are truth or fiction is immaterial, in a sense, for when people are unhappy they will not support the program. This has occurred with many regional centers in trying to gain local support. There must be involvement by the local personnel, not only as a gesture of good will, but in order to gain their support as well as to obtain those materials which will find the widest of usage by those who see a need for the items that have been suggested (N20).

3. Cataloging

Cooperative acquisitions programs can help in cutting costs and duplications as well as streamline the ordering process. The cataloging, being a cooperative process, is possibly an even more important program for the saving of finances and duplication of effort. Probably few who have acquaintance with the cataloging process would argue that the duplication of effort and the general gross inefficiency involved is appalling.

Without doubt the services of the Library of Congress as well as commercial cataloging concerns have done much to alleviate the tediousness of processing media and in addition save valuable funds. It is very doubtful if an elementary or secondary librarian could save money by cataloging the materials personally. The pre-catalogued cards available are used in a very high percentage of schools as evidenced by a cursory observation of schools.

Libraries in many areas are finding that, good as these services may be, there are still other avenues in which costs can be cut, efficiency achieved.

> Cooperative centralized processing has met with favor in recent years as affording a possible solution to the problems of meeting mounting costs; improving or even providing technical services; and, equally important, releasing time for more efficient public service (C16, 1).

An early effort in cooperative library processing is that found in southwestern Missouri. This center is independent and incorporated, though it is a public corporation. In 1962 it was serving 13 libraries: two cities, five county and six regional units.

The Southwestern Missouri Library Service, Inc. is mainly a cooperative processing center though they do work together in the purchasing of cards, pockets, book ends, mending tape and similar library supplies. Discussion was under way regarding centralized purchasing, though as of this report, it had not been implemented. Orders are sent by the local library but the shipments are sent directly to the processing center. Books are processed in a short time, typically in but a day or two and are then sent via parcel post to the member library. If the shipment is 200 pounds or over it can be economically sent by freight (C16, 23, 37).

This center is located in the city of Bolivar and serves libraries as much as 170 miles away, with others as close as 30 miles (C16, 5). This would seem to indicate that close proximity is not a requisite to cooperative action in this field. One element in keeping costs down is the library rate on parcel post, which is very reasonable. In addition the one or two day delivery time coupled with but a day or so in process at Bolivar gives very good service.

An indication of the value of this center might be ascertained from the volumes processed. During nine months of 1957 and 1958 18 222 volumes were processed. For 1958-59 it rose to 55 055 and during the following fiscal year it was 48 078. The latter figure is a bit larger in that another library became a member later in the year. This addition would bring the figure to 59 676 (C16, 41).

During the 1957-58 fiscal year the processing averaged about 54¢ per volume processed. The figures for 1958-59 were averaging 32¢ each and for 1959-60 it was 37¢ each (C16, 40-41). For one who has cataloged and processed books, these figures would no doubt bring a very positive reaction to the concept of cooperative cataloging. Cataloging is a time-consuming process Original cataloging takes X number of minutes for a given title, whether there be one copy or ten. By cooperating in this process as well as in attendant technical processes, the per copy investment in time can be substantially decreased.

The media center in Lincoln, Nebraska, like many other such centers, does the processing for the schools of the city. One set of cards is procured and duplicated as needed for the copies being distributed to the schools about the city (L20).

The eight schools of Mt. Prospect, Illinois are saving $800 annually by cooperating in their processing of 7 000 to 8 000 books and 1 000 to 2 000 new titles each year. They use a small duplicating machine for card reproduction. It used to be that catalog cards cost them about a thousand dollars each year whereas now it is from $150 to $200. In addition they get quicker service with books spending less time in the process room. Because of the added savings in money and time, they are able to offer additional services on the same total budget (W15, 41-42).

A rather unique cooperative program in the library field is that of the Systems Development Division of IBM (International Business Machines), and seven special libraries scattered about the United States--Vermont, North Carolina, Colorado, New York and in Kentucky. These libraries cooperate in acquisitioning, processing and cataloging of their books. Virtually the entire procedure is done by computer: book ordering, card print-outs, printing of circulation cards, printing of spine labels etc.

The center is located in Poughkeepsie, New York and has a professional staff of librarians, computer personnel, clerical assistants and a manager. Costs of operation are divided by the number of titles purchased and processed through the Library Processing Center. As might be expected, costs have decreased as more libraries have joined the organization (W36, 572).

> Library members of the network have been enthusiastic over the results of membership. They have found that the advantages provided by membership have proved to be practical and economical. In addition, there are bonds of closer communication and cooperation that terminal systems offer; and finally there is the general satisfaction of participating in a successfully operated project--one that is beneficial not only to their libraries but also to the corporation supporting them (W36, 572).

It is of particular interest to note that a cooperative venture can operate among groups even when there are vast geographically diverse locations. Obviously not every type of cooperative program would be feasible with these distances, but in some instances it is practical.

One of the chief values to be obtained from either independent cooperative ventures or via commercial cataloging enterprises is the data bank concept which is used in computer storage units. Bibliographical data are stored on discs, tapes or similar storage media to be retrieved at a moment's notice. MARC tapes are used as a base for many of the systems, inasmuch as they are very comprehensive. These are supplemented frequently by other collections that have been previously placed in the data bank. By being able to draw upon the items already cataloged and stored, the user is able to achieve savings of a major nature, for duplication of effort is eliminated. It has required cooperation, either directly among the users or indirectly from the corporation who offers the services commercially. In order for his service to function, it has required, to a great degree, the cooperation, directly or indirectly, of other libraries. Original cataloging might be done, and is done; however, as the input increases in the computer storage unit, the need for original work decreases, which in turn speeds up the service to members or clients and additionally lowers the per-unit cost (L10).

The use of the computer has been of value in other ways than cataloging. It has made possible, in a more efficient and practical way, the book catalog. With the input data in the memory unit, a print-out can be made to order. These can either be in the form of cards or regular print-out sheets which in turn can be reprinted for distribution about the campus or to member schools and libraries. In this fashion the holdings of a particular library can be made more accessible to the clients or pupils. Book catalogs can be placed in strategic locations for professional and pupil use. Union catalogs have been about for years but computer-produced book catalogs have brought the cost for production to a minimum (X1; L11; T11).

It is possible to use a code for each member library and thus the user of the book catalog knows the location of the media. This not only assists the user but also helps to avoid the duplication of lesser used books when it comes to ordering. Funds can be more wisely spent for volumes that are used more, or for the acquisition of other titles. This code also assists in the distribution of the books so as to better saturate an area according to the needs of the particular locality.

The computer-based catalog also is of great use in producing specialized print-outs, again, for instnace, for the business teacher who needs material on the stock market or for the agriculture teacher in the field of field crops. This type of service would be difficult for the individual library using but a card catalog. Resources would likely be meager and who would have time to prepare a bibliography on stock markets and field crops, of that material available locally, or within the region? Cooperation pays rather large dividends in this area, and those dividends are available at a relatively low cost.

Original cataloging is costly. Some studies have shown the costs to run as high as six and eight dollars per title and four or five dollars per title is rather common (A27; H3). Compare these costs with computer-generated catalogs and one will note the costs tend to run at from a dollar to $1,65 ($1.65) per title and in some cases as low as 75¢ each (X1; L11; L10).

Obviously the point of this discussion is not to give a complete resume of computer cataloging or book catalogs, for volumes have been written on the subject; however, the concept is being presented as it pertains to cooperative action (L10). Card catalogs are also aided by computers and as was pointed out, paraphernalia are produced for them by the computer (X1). Generally, however, the book catalog is better suited for regional programs in that it can be produced in quantity at a reasonable cost. It is thus that most regional media centers use this form (B12, 76). Each school maintains "current status by means of supplements distributed periodically by the regional centers" (B12, 74-75). At least one company sends interim cards for new items added to the collection after the book catalog has been issued. This would help to bridge the gap till a new supplement is printed or a completely new catalog (X1).

Book catalogs, good as they are, do have shortcomings. One of the major weaknesses is maintaining a listing of items as they are added to the collection(s). True, supplements can be printed every several months and the cards can be used locally but to the distant user it can become irksome to check through six supplements plus the main book catalog. Yet, this very system is used by periodical indexes and the Library of Congress Subject Headings volume. On the other hand, what better system is there at this juncture? It is possible to print out multiple copies of the cards though this can become quite combersome also. Duplicating of cards by mimeographing or multilith is done in some areas (L20). The photocopying of cards by Xerox or some similar process can also be done but this can become rather expensive if very many copies are involved (A28). As has been mentioned, most media centers have chosen the book catalog for the regional use (B12, 76). Probably the book catalog produced on a computer is the most flexible, all things considered, for cooperative programs.

Most of this discussion has centered on the library as a repository of books. The modern library is fast losing its image as a caretaker of books and print materials only. It is expanding into all areas of media, including audio and visual sources. Most of what has been said applies to multimedia centers as well as the audiovisual center. Cooperative cataloging of audiovisual materials is being done in southern California. The Department of Cinema of the University of Southern California (U.S.C.) will use a computer with automatic information storage and retrieval to serve the eight counties involved in the Southern California Automated Cataloging Project ($18, 185). U.S.C. is also offering a similar service to schools anywhere (N10).

Another example of audiovisual cataloging on a computer, but on a small scale, is that of Clarion State College in Pennsylvania.

They utilize the campus computer for production of a book catalog to be distributed to all faculty members. This catalog lists all available material in the instructional materials center and is patterned after a similar project at Boston University. Though the program is presently local, regional, state-wide and national connections are being planned for they see this approach as being fitted admirably to cooperative use (L16, 12-14).

4. Automated libraries and computers

The literature, as a whole, gives indication that the library is becoming more and more a part of society in more ways than one. Not only is it becoming more humanized and geared to the needs of the community, but it is becoming more integrated with other libraries and allied agencies. This is seen in cooperative programs, inter-library loan, hot-line hook-ups with state libraries, inter-library in-service education programs and similar projects.

The coming of age of the computer has made it more feasible for libraries to join forces in information exchange. It has also made it mandatory that libraries cooperate in the operation of the computer either directly or in sharing time with some school or corporation.

As has been pointed out, the computer is being utilized in sophisticated cataloging services, utilizing MARC tapes and supplementary data banks from other collections (N10; C75; L11; S20; X1). Inasmuch as millions of volumes have been cataloged and have been put on tapes, the smaller library is able to utilize this previous work at a rather minimal investment.

The computer is also of value in carrying out the other technical phases of library work, such as ordering, acquisition of monographs and periodicals, cataloging routines, production of work sheets, circulation records, serials and a host of other clerical type jobs. Routine tasks as well as exact type responses to specific situations are of a nature that data processing equipment can handle the task, frequently, if not usually, better than humans. Few would argue that the computer can do it more quickly and no doubt in the long run, at a lower cost (B33, 121-126).

In fairness it should be pointed out that the MARC system and similar programs have not solved all problems. Occasional comments are heard of technical difficulties. Further progress is yet to be made.

Among specific applications there is the LISTS project in southern California, a cooperative program involving seven libraries (B33, 121-126). This program has been briefly described already. A computer is at the heart of the program.

The Springfield, Oregon School District has been carrying on a project in automated libraries. As might be expected, this is not being done on its own, but rather cooperatively. The Lane Intermediate Education Department has sponsored a computer program called OTIS (Oregon Total Information System) which ultimately is to cover all Oregon schools, it is hoped.

Springfield's program is called LEEDS (Library Exemplary Demonstration of Springfield). This is a cooperative program with the computer being located across the river in Eugene, location of the University of Oregon. A staff of 45 is located in the computer center. Services there involve personnel, financial activities and student problem solving, in addition to the assistance to the Springfield program.

The system being utilized is compatible with the Library of Congresses MARC system as well as the Anglo-American Cataloging Rules, Sears Subject Headings and Standards for Cataloging, Coding and Scheduling Educational Media. Though it may be obvious, it should be made clear that compatibility is a key to the success of any cooperative venture. Standardization, at least to some degree, is vital to its success.

This Oregon project has also received the cooperation of the personnel of the state media association, the school librarians of the state as well as other educational groups. The OTIS group has direct connections to 36 school districts, thus giving further evidence of the complicated inter-relationships that are becoming more common. If no man is an island, then organizations are finding this to be a truism of greater magnitude in our present society.

As of this writing, the program of OTIS is in a pilot stage. It is felt, however, that

> Time saved for the librarian, through the use of the computer, can be translated into service for the faculty and students. The most important realization of our project was that librarians and media personnel must be involved in the direction of the computer for library use (B34, 173).

Again, one is reminded that the local personnel must not only feel that they are involved, but must in actuality be involved in programs.

As noted previously, the lack of this involvement has been a major criticism mentioned in the literature. The depersonalization process has reached the critical position in our society, therefore an awareness of the problem must be faced in all cooperative action as well as in utilization of the computer and its components. Cooperation and regionalization as well as the computer technology are tools to aid educators in presenting a more efficient and comprehensive program.

The Oregon State Library and the Oregon Library Association are working on a state-wide cooperative library network for public, private and educational libraries. This trend is being noted in many sectors of the land (B34, 172-173).

A crucial part of the information retrieval systems that are blossoming, is the computer. The Boulder Valley Center utilizes the computer (B42). The MOREL project was based on the computer (M39). Then, of course, the gigantic ERIC (Educational Resources Information Center) program is based on the computer, coupled with the microform technology, the two of which are utilized much in this expanding field of information retrieval (E13). Hundreds of documents are abstracted and indexed monthly in Research in Education, and in addition a similar service is available for educational periodicals. All this material is placed on the computer and most of it is available via microfiche at a nominal cost. The collecting and abstracting of the documents are a cooperative endeavor of almost 20 universities and learned societies, each working within its specialty (E13).

Each local library is able to maintain its own autonomy, if the procedures and organization are properly styled. Most of the literature favors local initiative and direction, yet more and more voices are being heard and actions are being taken to regionalize and by other avenues cooperate with other libraries and institutions. Much of this progress is possible without losing independence. With

> . . . standardized procedures for bibliographic entry and computer applications all libraries are able to draw upon resources of the others. No local center has been forced into a single uniform mold. Instead, each center has begun with locally based operations, and is now growing into a national information system for special education (09, 19).

Though the above example at Michigan State University is in special education, the principle involved is similar.

Dial Access systems are really a library function, though they have been discussed under audiovisuals also. Some of these systems are basically electrical involving tape recorders and video tape recorders while others become further involved with telecommunications. Still others are even more involved with computer tie-ins which also may involve telecommunications equipment.

The retrieval systems may or may not involve other institutions. Dial access systems are currently available for use in local programs that are relatively inexpensive, however, the usefulness of any system can be multiplied when the resources of other institutions are interconnected by cable. No system of a local nature can maintain the depth of materials that would be available by combining the resources of sister libraries (R7; 09).

The computer combined with telecommunications networks are bringing a vast number of resources to the schools and libraries that have heretofore been information starved. It just was impossible to muster the materials needed. Though the computer and its components are far from a panacea, their values no doubt have outstripped the liabilities.

5. Information services

Reference and reader services are offered at most libraries, school or public. However, as reference librarians know, questions arise that cannot be readily answered locally. It is here that an established cooperative program comes into action. Inter-library loans are quite common about the country and have been discussed. Without doubt the actual exchange of volumes is a great cooperative service.

Another approach to the solution of the problem is the provision of telephone connections with larger libraries. Such is the case in the Hot-Line program in Michigan by which a local library phones a local established Hot Line clearinghouse, such as that at Lake Michigan College which is furnished with direct connections to the State Library in Lansing. The patron then receives the book, periodical or document or up to 60 pages xeroxed free of any cost if the material cannot be sent (M29; M35). The million-volume State Library is further bolstered by various state university libraries. Similar services are offered by other state and regional agencies.

In Michigan a feasibility study for an educational information system was undertaken in 1961.

> The design strategy involved determination of the natural, physical, and organizational networks of such a system through such means as structured interviews, an information system survey questionnaire, small group feedback, a literature search, solicitation of expert opinion, and site-visitations (G43, 1).

From this study, certain assumptions were accepted as basic in an educational information system. They are, in brief:

1. It should be built on user requirements.
2. The user is the best judge of relevance.
3. Computer terminals should be accessible to the system and user.
4. There must be current information, rapidity of service and ease of access.
5. There must be two-way vertical articulation--user needs to materials and materials to user needs.
6. The Michigan system should concentrate on state and regional levels--coordinate but do not duplicate.
7. There should be support and development of local systems.
8. It should provide internal reference to the host agency, such as the State Department of Education and the intermediate units.
9. The information content is to be knowledge in all forms and formats.
10. The technical functions should include the following:
    a. materials evaluation

b. acquisition
c. technical processing
d. storage for retrieval
e. access for use
f. evaluation of system for "relevancy and performance"

In addition other secondary functions are listed, such as public relations, public documents, search strategies, analysis of output, identification of voids in information etc. Then the report gave the following two additional basics:

11. Each regional center should specialize in items of local importance.
12. Management information, information for dissemination, and the production and utilization of audiovisual materials are complementary and related areas which, while not being the concern of the system, should be taken into account in the system's design and operation (G49, 4).

The assumptions are self-explanatory, for the most part; however, note the concept that centers should specialize on items of interest in the area or region. This is most logical and practical, yet the information is available, via the network, to a person who is some distance from the originator. The same idea is utilized in pure print material, minus the computer with its rapidity and depth. The computer-based system is much more sophisticated than a mere interchange of books by mail, though this should not be discounted.

Note also the recommendation that all forms and formats should be involved in such a system. This conforms to the general understanding of a modern library as an information dissemination center that is multi-media in concept.

In the Boulder, Colorado area there is a regional center for information about education. This center is different than the one spoken of for Michigan in that it is within a region of the state and yet it has developed into a multi-state regional center. The program started out as a pilot project in the Boulder Valley. Currently South Dakota schools are involved and plans are underway to include Washington, Wyoming, Utah and Oregon also.

The center has a data bank of 35 000 abstracts. They rely heavily on material from the Educational Resources Information Center (ERIC). In addition to the automated retrieval service, the center's personnel use the library facilities of the University of Colorado and other collections. Patrons may write in requests, telephone or have personal interviews with a staff member. The individual will be provided with an abstract, or if needed a printout from a microfiche. Periodicals are also available from either the center's collection or the university.

A staff of twelve man the center: director, secretary, two information specialists, two reference librarians, data clerk, clerk-typist, analyst programmer, data processing specialist, computer operator and key punch operators (B42, 1-2).

The Southeast Educational Service Center is located in Sioux Falls, South Dakota and is discussed elsewhere in this paper. However, at this juncture the multi-faceted cooperation route is amplified.

This center is connected to the Community Resources Center in Boulder, Colorado, many hundreds of miles to the southwest. This South Dakota center has computer and manual searching services available, including the ERIC documents.

The Sioux Falls facility offers, gratis to those in the area, computer print-outs of abstracts, xerox copies or microfiches. It has been found that this approach has been less costly than hiring consultants and is doing a better job (S40, 16).

The largest medical library in the world is located in a suburb of Washington, D.C. This library is the largest library in any single scientific field and comprises almost 1 400 000 items of media. On the surface this sounds very fine, but how is it of value to the physician and researcher in the field?

The library operates MEDLARS (Medical Literature Analysis and Retrieval System) which was established in 1964 to give access to the wealth of the center. Index Medicus is published via this equipment and gives indexing to 2 300 biomedical journals.

There are eleven MEDLARS stations across the country as well as eight regional medical libraries from which many services are available to the medical professions. The concept and implementation of the program are made regional in nature in order to get the materials to the man in the field. In this case the service is in the biomedical fields. Even those who are not involved in the MEDLARS program directly do obtain the advantages from the Index Medicus in their local medical library (N13).

Many pages could be written on information systems; however, the point has been illustrated in several programs of varied natures. Through cooperative action, the information bank can be expanded to be of much more value than a local source serving on its own.

The cooperative/regional program is not without problems.

> We have experienced many problems, but none that cannot be solved through cooperation and standardization. The integrated teamwork of the librarian, data processor, computer programmer, and computer laboratory operators is imperative to the success of the program. Intra-center cooperation and effort cannot be stressed enough, since failure to communicate mutual ideas and plans at any point in the professional line-up will result in wasted effort, duplication and non-realization of intended goals (O9, 19).

The same report mentions that they have had more troubles from "short-sighted administrative policies than by technical difficulties" (O9, 20). This points out the need for basic planning and communication on all levels.

6. Audiovisual library services

Inasmuch as the modern library is multimedia in its very foundations, dissemination of audiovisual materials is as much a part of its services as print materials. Some have balked at this intruder, just as librarians of an earlier age were satisfied with arranging clay tablets and were no doubt disturbed at the arrival of parchments! The multimedia concept is noted within the very fiber of the Standards for School Media Programs, which is authored by the professional associations in school libraries and audiovisual education (A16).

As pointed out elsewhere, as much as possible the materials of the media field should be as close to the ultimate user as possible.

However, as the state of the art of audiovisuals advance, so does the cost all too often. Certain forms of these audiovisuals are just too expensive for every school library to maintain an ample collection, or for that matter even a single unit or copy. Such is the case with 16 mm films which average from $600 to $800 per hour of color film. In other situations, various titles of A.V. forms are such that it is not practical or advantageous to have a copy on hand, yet it must be available upon demand.

It is here that a regionally-based facility is being utilized in all parts of the nation for specific purposes. One of the most common special purposes collections is the 16 mm film library. To many people the first type of film library that comes to mind is the one at the state university, such as Kent State University, Michigan State, University of California or the University of Illinois, among many. In other cases it may be a commercial venture such as Modern Talking Pictures or a specific company as Shell Oil Corporation.

In a sense the state university library of 16 mm films is acting as a cooperative regional dispersing center. It must be kept in mind that the size of a region is far from static. It can be said that it is an assembly of schools and school districts, in the context of this paper, for the furtherance of various educational projects and programs that would not be feasible or practical if done independently. The university film library would qualify to a degree; however, generally speaking the region is thought of as a smaller unit, similar to the intermediate school district.

The State of Louisiana has nine regional film libraries within its borders. The entire program is cooperative in that the State Department of Education, the State Colleges and/or parish (county) school systems cooperate in the operation. The loan of films is without charge other than return postage. These are ordered from the index, Films for Classroom Teaching, in which films are listed alphabetically by subject. A set of annotated file cards accompanies the index (L27).

Another approach to the situation is found in New York State. They have a film library network in which the libraries and BOCES (Board of Cooperative Educational Services) are inter-connected by teletypewriter. As of this report, the program is on a project basis with Syracuse University acting as the central back-up library (B31). This program introduces an interesting approach of not only interconnecting the institutions that are on a peer relationship, but having a larger institution act as a back-up unit for those items that cannot be supplied otherwise. No doubt this concept could be utilized for all types of library activity.

Frequently the media center, whether local or regional, has a limited or non-existent collection of 16 mm films. At times the media center or library will lease films from a film cooperative. These may be on a long-term lease or be on a rotating collection basis. Many local public libraries have rotating collections that change monthly (T16).

Santa Clara County, California has a media center that serves the county with 16 mm films only. Filmstrips also were carried by the center, but they have been dropped in favor of the local school districts maintaining the filmstrip collection. This approach is no doubt practical in this county inasmuch as it has a population of about a million and the vast majority of the population is in an urban area. It would be relatively easy for one school district to borrow from another district that is but a few miles away (S4, 129).

Another type of library service found in many areas is that of the tape library. The Colorado Springs Public Schools, Colorado have a library of pre-recorded tapes which are dubbed as needed by local schools. The customer provides an appropriate sized tape which is duplicated to order (C57, 1). A similar service is provided to the residents of Michigan by the University of Michigan Audiovisual Services. The patron provides the tape, or purchases the tape from the university and then pays a dollar per 15 minute dubbing fee. A large catalog with periodical supplements is provided (U11).

A national audio-tape library is located at the University of Colorado. The collection is educationally oriented in scope and is reasonable in fees. The University of Iowa at Iowa City maintains a similar collection as does the University of Alberta and many others. The State of Texas maintains a master collection of 5 000 titles which are available to the regional centers about the state (T16, 15).

Though in some cases the actual tape is loaned, most larger centers dub to order. This is feasible with the high-speed copying units that are available. If the originals were loaned, they could easily become lost or erased accidentally by amateurs or careless users.

The increased use of cassettes may have an impact in this field also. High-speed duplicators are available that will copy an hour-long cassette in but a few minutes. A commercial concern sells cassettes at a rather high price with the idea in mind that the library maintain it as the master and then the user copies the material. Evidently the price asked is to compensate for profit loss from duplicating. A multitude of titles is available. No doubt the concept has possibilities in regional centers as a whole (C30).

Videotapes have been rather high in cost, though not as high as 16 mm film. There are two major videotape libraries in the academic course field, namely IMPATI in Indiana and the Great Plains National Instructional Television Library in Nebraska (M57; G42). Videotapes as of this writing have been averaging about a dollar per minute blank. Dubbing of these tapes has been rather expensive also, with high-speed units such as used with audiotapes not available. It is thus that even though these organizations are not profit-making, yet the costs are still relatively high.

The advances in the electronic videorecording field may have far-reaching implications on the audiovisual and library fields. If the prognostications come to pass, television tapes and/or video cassettes will be lower in cost than 8 mm film and no doubt film will be as common in the library as recordings and books. Equipment costs and software costs are not excessive, but hardly of the bargain nature either. The buyer is cautious, quite obviously, till the market stabilizes and compatible units are in manufacture and have been proven to some extent. The school buyer is also interested in a variety of software that is reasonable in cost (W41, 553-554).

For the most part, other audiovisual materials are of a local nature, such as phonograph recordings, super 8 mm film, film loops and filmstrips. A major exception to this would be the unique realia, mockups, specialized equipment and specimens and similar items not ordinarily classed with software, which would more likely be considered from a library function standpoint.

It is conceivable that much of the software such as filmstrips and recordings might be carried in a regional center if the area is poor or the schools are small and isolated. It is very difficult to make broad statements in this field for the variations are immense. In the larger, more populated areas, however, the public schools tend to follow the pattern suggested at first: mainly, regional libraries have 16 mm, videotapes and audiotapes and exotic audiovisual materials.

7. Text and supplementary book depository

The text depository function might be considered as being administrative in nature, though it is discussed here for it does have library implications in many ways. Textbooks have taken on new meaning in recent years, so much so that at times the librarian is hard pressed to tell which are texts and which are regular library books. The concept of supplementary textbooks has also grown considerably. To complete the picture, the library has changed its image and has become an instructional materials center in which all of these volumes will be found plus a host of multimedia of all sorts.

From an administrative standpoint, quantity purchases can save dollars. It is thus that pool purchasing is a key service in many educational service centers. From a curricular and instructional standpoint, it is considered advisable to have similar texts being used within the district. Teachers are better able to correlate their efforts. Librarians can better assist in the educational process. Consultants can better advise teachers when there is some uniformity.

Critics, of course, argue otherwise. Individualized instruction is in and flourishing in many quarters. Many feel that uniform texts are stifling and cannot accommodate individual differences.

For whatever the pros and cons, districts and even states do have uniform adoptions. It is thus that many districts and states follow the policy of ordering and distributing texts through a centralized agency. Multiple adoptions are quite common, thus negating some of the criticism of educators (B48, 182). Generally speaking the price break will be better when quantity orders are made.

Another technique that has been considered profitable is that of maintaining a textbook exchange. The State of Florida maintains such a unit in Tallahasee. Its function is to collect and redistribute surplus textbooks and in so doing save thousands of dollars (B48, 189).

For one reason or another, new textbooks come out every several years. No doubt in most areas, it is necessary to purchase new texts in order to have the newest in curricular patterns or up-to-date content material. If a particular school has a small fifth grade for a year or two, those texts purchased when a larger group was present, will lie idle and become out-dated, even though they may physically have several years of usage remaining. This is a clear loss.

Having a centralized agency, library or otherwise, would seem to solve to a great degree this wastage of texts. No doubt the same concept could be utilized in other areas, such as certain types of unique supplies and equipment. Such has been the case, in a sense, in the State Educational Surplus Agencies such as are found in Lincoln, Nebraska and San Leandro, California. In these depots, surplus from the military and other agencies is deposited for use by the schools and in some areas for other non-profit agencies. This surplus includes vehicles, office supplies and equipment, recreational equipment etc.

A slightly different situation is that of supplementary texts which are used for special units of work or similar applications. At the media center in Sonoma County, California, the shelves have multiple copies of hundreds of books which are available to the schools of the area (S38). It would hardly be practical or really a wise investment of funds for each school to purchase multiple copies of a book that is to be used for but a few weeks out of the year. By a bit of simple planning, the course work can be staggered so several schools can use the material. Again, the concept is applied to other media and equipment so as to obtain the full mileage out of all materials.

8. Summary and comment

The little library on the corner is hardly an independent unit any longer. Similarly the school library is more than just a collection of dreary old books tucked away down the hall. The library has taken on a more challenging role today. It is multimedia in concept, being a dynamic facility with both print and non-print materials at the disposal of pupils and faculty alike.

Because of its new central role in education, it has become necessary to increase collections and services. All too often it is virtually impossible to have that which is needed at all times. With the renewed emphasis on service to the patron, the librarian has had to come out of the "back room" and become a real partner in the educative process.

Service is good, but how do the chores get done? It is here that precataloged materials have come to the fore. Many areas are finding it to their advantage to care for most of the technical processes at a centralized location and even there to use commercially catalogued material wherever possible. By cooperating in this process, the local librarians can better serve the populace.

As knowledge continues to grow at explosive rates, the media informing the scholars also continue at astronomical rates. Not every library can contain all the media needed, therefore the libraries are finding it advisable to belong to regional programs whereby they can work together under various programs, such as inter-library loans, dial-access retrieval systems, telecommunications systems and in-service programs for media improvement.

In order for each library and school to know what is available the book catalog has become quite popular in that multiple copies can be distributed widely. In other cases the school may have a direct computer terminal connection or even have its own computer with storage banks of data.

Various microforms, such as microfilm, microfiche and ultrafiche are becoming more and more a part of the system. Major historical collections are becoming available to large public schools and no doubt have possibilities for regional centers, neither of which could even remotely consider such collections were it not for microforms.

The computer is finding a very receptive customer in the library for it not only can help in the retrieval field for books, various other media and microforms, but in technical processes such as ordering, serials records, acquisitions and selection, cataloging and in circulation.

Regional centers are developing audiovisual collections of materials that the local schools cannot afford to handle. In particular, these centers specialize in 16 mm film, videotapes and audiotape services as well as in the loan of the more exotic equipment and allied materials. Smaller and isolated areas depend even more upon these centers for items that would just be impossible were they to "go it alone." Cooperatively they are then able to have where before they had not.

Text and supplementary texts are finding a central clearinghouse in some locales. By pool ordering, original costs are sheared. By maintaining a clearinghouse of either actual texts or information as to their location, books are better utilized and thus costs are further trimmed.

This chapter cannot be complete, though some of the possibilities have been noted. Some examples have been cited. The field is vast and hopefully the concept has been planted amply to produce growth.

CHAPTER 16

AUDIOVISUAL PROGRAMS

1. Introductory comments

Broadly speaking, media encompass both print and non-print materials. In practice the word media frequently is used as a synonym for audiovisual, thus an instructional media center might be an audiovisual center or it might be a multimedia center with both print and non-print items.

Other chapters have described those services that might be termed "library," with the emphasis being on print materials or software being circulated along with such materials. This chapter will consider the general media centers and those emphasizing the audiovisual aspects. The reader should be reminded that the modern instructional media center, instructional materials center or just plain school library is multimedia in concept and practice. The regional centers vary considerably in their emphasis.

As the literature is noted and analyzed media services typically are at the heart of the center though frequently other services are available also. The following definition of a media center appears to be quite adequate for most situations:

> Briefly, a media center may be described as a facility staffed with professionally trained personnel who have an understanding and workable knowledge of the vast quantity and variety of instructional equipment and materials now available. It is intended

> to house and disseminate instructional materials and equipment in support of the learning activities of the schools (03, 2).

These centers may be based in one building to serve one school or they may serve a school district. The center may serve many districts and be classed as regional in operation or possibly it may serve special interest groups in many states, such as those organized for special education by the U.S.O.E.

At this juncture the reader must remember that a school or school district does not connote any specific size. Similarly a region may vary considerably in size from one area to another. It is thus that terms must be used flexibly. The discussion here will center around various sizes and types of centers, ranging from those in a single school to large regional units. One reason for this approach is that some schools have as large a center as is found in a region serving many counties in some areas. This is true in the same sense that some city schools have centers that are larger in extent than some regional centers. Thus samples have been selected from the various areas in that much can be learned from each.

2. School media centers

School media centers range in extent from little or nothing to sophisticated centers that cause many a college to envy the facility. Quite obviously it is not possible to rehearse that which is found in even the elect few outstanding school media centers. However, a brief report will give indication of what is available in one school. One notable school is the Harry A. Burke High School in Omaha, Nebraska.

True, this is an exhibit case, but it is a good example of what can be and is in many areas, though it can hardly be labeled as "typical."

Though this media center is within one high school of 1 450 pupils, it is planned that other schools may benefit from its facility, chiefly its dial-access retrieval system.

The school has access to the school system's 2 000 print film library and the 3 000 volume professional collection of books. In addition the school has an extensive book collection for pupil use. In one sector of the media center, a large number of carrels are located with dial-access retrieval units that can be dialed like a telephone and in turn the pupil receives an audio response from the bank of tape recorders located in another room. Video response will also be available from videorecording equipment.

Adjacent to the pupil public area of the center is an audio-visual production room with instructional television equipment. In this area are found the tape banks for the dial-access units located in the wet carrels in the public area.

The professional staff of this center is as follows: three librarians, three clerks, one half-time technician and one para-professional. Again, this school is hardly typical of average high school, U.S.A., but with the federal aid, it has become a model of what can be done. It has been an inspiration and showcase (03, 255; B59).

Chabot College, a junior community college in Hayward, California, is another school that has been built from the foundations as a modern school, incorporating that which is considered best in this age. Rather interestingly enough the media center is at the very heart of the campus. This is true of other schools also, such as the new campus of Oral Roberts University in Oklahoma. The literature is full of illustrations of this concept: the centrality of the media center in the school.[1]

On the main floor of this round structure are located the instructional television studios. An audiovisual media center and learning center with approximately 90 wet carrels are located on this main floor also. Most of the carrels are wired for audio, though several are wired for video presentations. A large room is located adjacent to this area with a vast array of media, mostly non-print in nature. It is arranged primarily by accession number within the various types of media, such as films, recordings, posters, specimens, etc.

The second floor is primarily a library in the more traditional style with reference services and reading room located in the same area as the circulation offices. A mezzanine floor houses the stacks. Even though the print and non-print areas are separate, they are housed in the same structure. This is typical of many, if not most of the newer schools, no matter what the level. This is significant. Unless something brings on a change, the multimedia unity of materials is THE thing. It is being virtually universally accepted in the land, though, as previously pointed out, there are differences of opinion as to who has what jurisdiction etc. (C35).

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[1] Note A.A.S.A. Exhibits, Council of Educational Facility Planner's Publications and Publications of the Educational Facility Laboratory of New York and Stanford University.

On the regional level this is also true in principle, though as mentioned, the services offered are those that are needed. Books more commonly are available locally whereas many audiovisual items are more exotic in nature and thus not as commonly available.

3. City-wide centers

Though the emphasis of this paper is on regional centers, several city-wide centers will be discussed inasmuch as the difference between the city-wide and regional center is primarily one of geography and not of function or size. Undoubtedly much can be learned from their operation.

Rather than recite the activities of each of the centers, which would tend to be redundant, unique elements or certain typical facets will be brought forth because of their value to understandings that are being developed.

The Portland, Oregon center is quite well known for its audiovisual program. Among their holdings are 9 000 prints of 3 500 filmstrip titles. Wherever possible the media are placed as close to the users as possible, which is in keeping with the preponderance of thought along this line; however, specialized materials are located at the audiovisual education department (the media center).

The Portland center orders and catalogs the media for the city schools. Elementary textbooks are also a part of the program of service. Coordination of in-service education in media is within their providence also. Inasmuch as the audiovisual department handles most of the materials within this field, the in-service phases of media seem most appropriate when handled by the same department.

A rather unique phase of their work is the evaluation of 1 200 items each year. Without doubt this is a valuable service, though one cannot wonder about the multitude of hours involved. How many other systems have to do approximately the same process with about the same number of hours? Possibly this is a place for more cooperation. Of course the EPIE (Educational Products Information Exchange) Institute and the Library Technology Reports of the A.L.A. (American Library Association) are covering some of this field. No doubt this is a valuable service that could be expanded further with cooperative action (G33, 38).

The West Maple Instructional Materials In-service Center in Omaha, Nebraska was established as an exemplary unit to foster the development of similar centers in local schools. It serves both public and non-public schools, with services quite typical of such centers.

There is an evolutionary development of the center from an "assistance with machines" to the "planning of the curriculum" with the media being part of the whole. Rather than media being an appendage or "frosting on the cake," it becomes a component of instructional development. It would appear to be dangerous and shortsighted to treat audiovisual materials and the accompanying hardware as ends in themselves or just as embellishments (K5, 31-32).

The Learning Resources Center of Wilmington, Delaware maintains all audiovisual equipment. In addition, all audiovisual and similar equipment must be cleared through the coordinator prior to purchase, in order that quality merchandise might more likely be purchased. This procedure would seem to have much merit, as long as there is sufficient balance of administrative power to forestall a dictatorial policy on certain brand names. It is conceivable that a single person could have biases, be involved in kick-backs or other negative attributes. On the positive side, such clearances could very likely save many dollars in excessive outlays as well as greatly eliminate foolish procurements or brands that have been found to be unsatisfactory. The typical educator normally is not qualified to pass judgment on sophisticated equipment (W33).

13 000 pupils and 600 teachers are served by the resource center of West Hartford, Connecticut, which is similar in size to many regional centers, though the regional centers have further complications in logistics.

> Where the library becomes a learning resources center and serves an entire school system with various media at the beck-and-call of the student, you have Multimedia Information Retrieval (B14, 9).

It is with this point of view that Dr. Richter suggests that "such a system, which is within the economic feasibility of many school systems, provides learning/teaching aids at will and at once" (B14, 9).

Much of the material that is typically found in a media center is of such a nature that it is needed by certain individuals for specific purposes. This may be for a period of time that is very brief and yet it occupies valuable space and frequently has involved a sizeable portion of the budget. As more personnel and pupils use this material, the better usage of funds is noted. If an item is used very frequently by an individual school, they may find it advisable to purchase their own copy of the item, otherwise the shared resources of many schools have made it available for the use of many.

An important facet of the media center operation is noted in several of the terms used in the report on West Hartford: "beck-and-call" and "at will and at once." The availability to the user is of prime importance. If it takes undue time to obtain the item, it may not find an application, for the teaching unit is passed or the user has lost interest (B14).

The San Diego City Unified School District and the San Diego County schools are both progressive in their utilization of audio-visual media. The city center provides services to 138 elementary schools in this sprawled out city. Though it is primarily an urban system, the problems encountered are similar in many ways to those in the regional centers in that the area is so vast. Large ravines which run east and west dissect the city into many areas and complicate communications. The bays further add to the problems of transportation and traffic arteries.

A rather unique service of this center is the provision of shopping carts for the teachers, which is very similar to the system used in supermarkets. A cable car loops about the textbook depository area. These unique solutions to problems point out the need for schools to be more observant of business and industry as well as the military in regard to methods they use to solve their problems. All too often one can observe schools utilizing techniques that are very inefficient and awkward. Often if these schools would come out of their parochial viewpoints and look about, they would find solutions that would save money and labor and possibly give better service at the same time.

The San Diego center also serves as the centralized cataloging center for the high schools as well as the depository for secondary textbooks (H28, 155).

The Director of the Instructional Materials Center for Colorado Springs, Colorado, coordinates all library, audiovisual and television services of the school system. All print and non-print materials are processed at the center prior to dispersal to the schools. In further implementing this overall coordination of media programs, each school has an instructional materials coordinator who receives and disperses media from the central I.M.C. and then has the responsibility of returning it after use.

This center is illustrative of a rather comprehensive and centrally controlled media center. The organization is quite logical and hierarchical. Obviously some centers are not as structured but rather loosely organized. It is common to find school systems in which the library, audiovisual services and instructional television program are each under separate administrators with little coordination among them. In fact there are systems and schools in which each academic department carries on its own audiovisual program. Obviously the duplication of equipment and personnel is considerable, thus there is some question as to the overall efficiency of this approach. Empirical evidence shows this approach usually ceases as the organization and sophistication of the school and the school system increases. More and more schools are noting that costs must be decreased and yet the demands for better services and instruction not only remain but grow. With the increased interest in the multimedia approach to learning, the Colorado Springs type of organization no doubt will be found more typical in years to come.

It should be noted that the Colorado Springs center also offers arrangements for bus transportation for field trips. The teacher but fills in a "Field Trip Request" form and the center makes the arrangements (C58, 1-2).

It is difficult to have one facet of media without the other facets becoming involved directly inasmuch as they are so interrelated in function, organization and foundation. The interrelationships are there; whether they are recognized or not in the school system is up to question.

The literature gives more and more evidence of the recognition of multimedia as a whole rather than independent parts. No doubt schools must either put the various facets under one administrator or definitely cooperate among the departments so that there will be no undue duplication, or on the other hand oversights of services that should be offered but are not.

4. County media centers

As has been mentioned previously, counties vary considerably in area and in population. For instance the Educational Resource Center of Bossier Parish (County) in Louisiana serves 820 teachers (H27, 75), while the center in West Hartford, Connecticut, a suburb of Hartford, serves 600 teachers (B14, 9). For comparison, note that the Los Angeles, California audiovisual center serves 856 schools (B48, 293). On the other hand, within California there is a county with less than a thousand people--Alpine County, population in 1967 of 400 (S4, 130). Conditions do vary and thus it is difficult to generalize, thus various sizes and types of centers are entered as exhibits.

Daily service is offered to all but four schools in Washington County, Oregon, by the Washington County Intermediate Education District (IED). This is a suburban area of Portland but its media center is separate from the city unit.

Evidently the center is used considerably inasmuch as each piece of media is utilized about 25 times each year. A library of 3 000 tape masters is available. In addition transparencies are produced at cost from such masters as those from Keuffel and Esser, 3 M and GAF.

This high utilization indicates that the media are "making their way." It is not gathering dust on the shelves. In a smaller center, such as in an individual school, some items might be used even more because of the ease of utilization, that is, unless the regional or county center could deliver it readily. With daily service to most schools, any teacher who plans ahead should find it just as useful. In addition it must be kept in mind that some items would be used little in just one school because of their nature, possibly but a few times each year. By pooling resources that small center could have access to more exotic material which it might not be able to afford for just limited circulation. When a center circulates an item 25 times annually it is being used!

The Washington County center also has development services for buildings and districts, building facilities, designing and equipping. They maintain a professional library and in addition sell audiovisual items such as tapes, bulbs and the like. Future plans call for data processing, more production personnel, in-service education, television and satellite centers (A47, 14-16).

It might be well to look at a large county division of audiovisual services, for comparison. Los Angeles has such a unit serving 92 school districts and 856 schools. They have a staff of 45 and an annual budget of $650 000. Though this is not regional in the usual sense of the term, yet it is really similar in purpose.

They have 32 000 films which circulate 130 000 times annually. Larger centers tend to have a different type of service structure than the smaller ones. General production services and the distribution of less expensive media are usually done by the district media centers in larger urban centers. Inasmuch as 16 mm films are so expensive, they are suited to the large center, such as Los Angeles. Santa Clara County (California) with its million residents has phased out many services at the county center, but has maintained the 16 mm films. Other services are placed in the district media centers. Probably this could not be done in this fashion in rural areas or those with small cities (S9).

Instructional television is also among the services of the Los Angeles center. The costs of this medium of instruction are such that cooperative action is virtually a must. A local school might have a videotape unit, monitor and video camera and carry on a worthwhile instructional television program by utilizing that which is on the air as well as local productions of a limited nature as well as performance studies in physical education, music etc. However, when it comes to regular instructional programs that require much preparation, props and techniques, the costs are much too high except when done in a rather large center with a large budget and then aired, videotaped or cabled to many schools.

The regional television program for the Los Angeles area serves 86 districts in eight counties. It operates on a budget of $230 000. Instructional radio is also offered cooperatively within the Los Angeles City Schools (B48, 293).

The Bossier Parish Educational Resource Center in Louisiana might be taken as typical of a medium-sized center. Another similar sized center is at Bibb County, Georgia.

Bossier County shares with one other county the business area of Shreveport, one of the larger cities of the state. Similarly the city of Macon is in Bibb County. Macon is one of the larger cities of Georgia. The services of these centers, as might be expected, are different from those found in Los Angeles.

The Louisiana center produced 13 500 transparencies in their first year of operation. In addition they gathered [illegible]00 tapes. Super 8 mm cameras are used in the production of film loops.

Two-thirds of the classrooms in the 24 schools are equipped with overhead projectors with plans to equip all. Obviously this would be a corollary development to the production of 13 500 items of software. Coordination of activity is evident in such a program (H27, 75-76).

A rather unique service of the Bibb County unit, which emphasizes work among the disadvantaged, is the provision of free materials for teacher use. This includes scrap plywood and similar items that can be utilized in making projects, models etc. This is a refreshing approach to solving a problem. It does seem that the Bibb County approach to the recycling of scrap materials is wise (B30).

The Bibb County Instructional Media Center has, along with so many similar centers, gained a perspective in service that is multi-media in scope.

> The textbook is ceasing to be the prime source of content. "Supplementary materials" as such no longer exist--"any source of information is basic to the learning process" . . . The Center does not supplant but rather complements existing curricula (B30, 45).

This thinking is in keeping with the movements described in brief earlier in this paper. The media center is a very definite component of the entire learning process. This center, as with most others offers in-service programs and various audiovisual services. In addition they have an art program that is unique and is described elsewhere (B30; B28; B25; B26).

5. Regional centers

Throughout this report many regional centers have been described in one way or another. In this section some specific samplings will be offered of various regional centers as found in several sections of the country. Very probably the regional center reaches its height of value in those areas with scattered population and small towns and cities.

In New York State, cities with over 125 000 pupils are not allowed to be members of a Board of Cooperative Educational Services, thus underscoring the purpose of cooperation among districts to achieve the values found in larger cities (S3, 7).

The Umatilla County Intermediate Education District media unit also services the schools of Morrow County. These counties are in eastern Oregon which is comprised of wide-open spaces and mountains, but little in population. Pendleton, famed for its rodeos, is the major city. 12 000 pupils are represented in this area which is comprised of 17 school districts and five private schools. Some of these schools are 65 miles apart, yet there is twice-weekly delivery service.

Without a good delivery system, the regional center can be ever so good and yet be virtually useless. Accessability is a major component in the program. In more concentrated areas as about Portland, they can make daily deliveries (A47, 14-16). Of course the suburban Portland area, which is part of the largest metropolitan district in Oregon is far different from the wide-open country of Umatilla County and Morrow County. Yet it is in this type of situation that a regional center is most needed (M7).

Out in Nebraska they have similar problems to those in eastern Oregon. Both are grain and cattle areas and both have limited population. Two vans of Educational Service Unit Number Four cover over 100 000 miles annually as they deliver items to five counties of southeastern Nebraska. The vans leave at 8:30 (8h30) each morning and return at 4:45 p.m. (16h45).

A teacher may order on one day and receive notice of availability on the following day. Of the 16 588 items distributed during the 1970 fiscal year, about one fourth were sound films, another fourth were books and still another fourth were transparencies.

Production at this center has been impressive. Though only a few years old, the center has produced 30 000 transparencies and 40 000 spirit masters. Only a teacher could appreciate the time saved by such materials being available, and that on short order. Somebody suggested that 40 per cent of the teachers' time was spent in what might be termed non-professional duties. If this is true--and those who have taught would probably agree that this is substantially correct--then many services, such as offered by centers such as E.S.U. No. 4, would save much time in original work, tracing and research etc (E15).

The Southwestern Regional Instructional Materials Center in Pennsylvania serves 23 out of the 25 districts in this section of the state. This involves 90 per cent of the area and 80 000 pupils.

They deliver their goods on a weekly basis to the various school districts of this hilly country. During 1968-69 54 000 items were circulated from the collection of 10 000 items of high value. Four people make up the staff of the center which is located in the basement of California State College.

With an average value of $60 per item it is apparent that this center is circulating items of more than typical value as found in a media center. For instance an ordinary filmstrip costs about $6 and a book $5 to $10 while a transparency might run a dollar or two. No doubt these lesser value items are found either in the local school or district media center while the more expensive items are in the regional center. As to where this division point is, will depend upon the wealth of the region, distances, needs and desires, external funding sources, internal funding and a host of similar factors (K15, 7-8).

Federal funding gave the impetus for the media movement to a great degree. In some cases this funding was virtually the basis for the entire operation, in that without these monies the center would close, and in many cases that is just what happened. This would appear to be an unhealthy situation, though frequently the region was just too poor to do otherwise, or so it appears on the surface, for the entire concept of educational services involves much more than "extra" or fringe benefits and services. Many media centers offered that which was not offered previously and in that sense it was extra, or as some put it, supplementary. However, in its fullest interpretation, the educational service center is to save money, not just find ways and means of spending supplementary media funds unless by so doing quality can be improved and it can be justified. It is very possible that media services fall under this category, for in many instances the schools had very little in media production or media collections previously.

Red Oak, Iowa is the location of the Southwest Iowa Learning Resources Center. Red Oak is a farm town and railroad stop, yet it is here that a successful regional center is in operation; mainly because of cooperative efforts at many levels of government and private citizen initiative. Federal funding provided personnel and services during its early operation and local businessmen financed the building. The Lion's Club provided an observatory and telescope. A planetarium is also located at the center, which is quite unique for a rural community.

Community involvement is noted not only in the operation but in the services. They have family film nights, individual study carrels and planetarium shows. Workshops and similar media services are available to teachers. Over 3 000 films and 4 000 tape recordings are available (T4, 4).

Most programs tend to function more smoothly and operate in the "black" when there is cooperation on all levels, both professionally and from the laity. Could it be that the Red Oak center is better established than many centers that have had to close their doors because of lack of financial support? Without doubt, public relations is a major feature in the operation of any public type of facility. This is true not only in the planning, but also in the financing and continued operation.

6. Special purpose centers

The various types of special purpose centers would number into the scores. Among the varied ones to be found would be the units that emphasize curriculum innovation and research such as the EDICT unit in Fresno, California (A9). An enrollment area of 100 000 serving 32 high schools is involved in the Southern California Regional Occupational Center (S65, 47-50). A combined school district in upstate New York has a cooperative arrangement for library-type technical processing, which is to include non-print materials. This is similar to one in southwestern Missouri which serves libraries throughout various parts of the state (C16). The list could continue at this juncture; however, many of these specialized units are described elsewhere in this paper.

The emphasis here is on the idea that regional programs are geared to the needs of the community. In some situations a general media program is required. Frequently associated with the media program is the concept that the regional media center is the most logical place for other educational services, and thus the term regional educational service center. At other times a center will specialize in some specific area of media, or in some other educational service. The approaches vary from area to area, for the entire gamut of programs evolves according to regional needs.

The Oakland Beach Elementary School library, which is multimedia in format, is located in Warwick, Rhode Island. This unit serves 700 pupils and their 25 teachers as a demonstration unit for the state's 400 elementary schools--public, parochial and private.

A regular schedule is listed at which time a team visits the demonstration school. This team is composed of the principal, a classroom teacher and the librarian of the visiting school. Mileage is paid by the host school, inasmuch as it is financed from federal project funds, at 10¢ per mile up to $10.

In one sense it is a local media center, but in another sense it is regional for it is designed as a demonstration unit for in-service education. The state of Rhode Island, incidentally, is hardly as large as many regional units about the country, thus it encompasses a coherent community of similar interests (W7).

The West Maple Instructional Materials In-Service Center was established as an exemplary unit also. This center, described elsewhere, is in Omaha, Nebraska (K5, 31-32). Burke High School media center, in the suburban portion of Omaha, is serving a similar function (O3, 255). Many, many more similar units have been established across the land, of which a large proportion have been funded by the federal government. Hopefully these centers will spark and inspire action on the part of visitors. They do serve an in-service purpose for the region in which they are located.

Whereas the former centers have been specialized in their relationship to the region, there are others which are specialized internally as to their contents and function materially to the area. An example would be that of the media center for Unified School District No. 1 in Racine, Wisconsin. This center has emphasized the development of science kits, which include everything but 16 mm films, which are kept separately. They have 8 000 of these kits and are adding 500 new ones annually. The 1 600 16 mm films are in addition and are housed separately inasmuch as considerable maintenance is involved.

Shipping is done in collapsible wooden boxes that are equipped with handles. Chemicals are not kept in the elementary schools, but rather are furnished within the kits. These are then refurbished at the center as needed. This approach has been found to be safer, more convenient, saves ordering red tape and saves valuable classroom storage space.

The center also provides live animals, various biological specimens, biological cultures and similar items. An audio-tutorial system is located at the center for the use of the teacher in learning applications for the kits. A consultant is available to assist the teacher. As might be expected, cooperation is a key feature to the operation and use of the center (G51, 67-68).

Again, a similar set-up is located in Los Angeles, California, though in this instance the center is plural, for there are branches about the large area of the city, serving the science needs of the schools (L30).

Other cases could be cited to illustrate the varying approaches being utilized about the United States in this customizing of the regional cooperative concept. As Racine has emphasized a need in science, so other communities have cooperated among themselves in outdoor education programs, tape duplication services, instructional and educational television networks and a host of specialized centers.

No doubt each of the various types of audiovisual services to be described, have been emphasized or have even been the basic purpose of a cooperative venture. Often a special need has prompted the formation of a regional program and as time passes, other services are added. In the final analysis, all programs are, or should be, for the good of the populace, and the pupils in particular.

7. Summary and comment

To say that a particular establishment is a regional educational service center is a rather general statement inasmuch as the definition of "regional" is quite broad and the type of services involved will without doubt be rather varied.

Generally speaking, a regional center can safely be termed as a facility operated by several groups within an area for the mutual good of that group. The size will vary considerably according to need, geography, communications, spirit and similar facets. Because of the varied sizes of such centers, it has been thought wise to explore the activities of service centers on many levels, ranging from the local school to a large region of many counties. The services are very similar with the differences being mainly on the logistics and geography.

In this chapter the discussion has been on the audiovisual services, which at times is referred to as media or audiovisual media. In a pure sense, media include both print and non-print items, however. A very large proportion of the regional educational service centers across the country have audiovisual media as a core of their service function. Because of the relatively large expenditures for these audiovisual items and the relatively specific intended use of much of this material which would find much less utilization in individual schools, cooperative purchasing and distribution have come into play. In so doing the local school is able to have a much larger selection of materials. Additionally, production services are made available that frequently would not be available because of the initial equipment costs as well as the personnel to operate that equipment. Only the richer and larger schools could have this service, and even then many services would not be available to them.

The audiovisual services available to schools generally can be listed as production and distribution. Some items are locally produced according to local needs and also because local production often is considerably less expensive than commercial sources. This production may involve rather simple processes such as photocopying equipment being used for transparencies, duplicating, slide copying, cassette reproducing, tape production and similar items. Some centers may get involved in lithography, electronic stencil cutting, silk screening, studio services for film production and videotaping and sophisticated graphic productions.

In some situations the centers offer a service that might be more typical of a school or district service, that of study carrels equipped with audiovisual devices ranging from tape recorders to DIAL access equipment. Museums and associated units are provided at other centers. Planetariums and astronomical equipment are available at still other regional centers.

Many centers offer in-service opportunities in the media field and, as mentioned elsewhere, in other academic, professional and paraprofessional fields. Some centers operate mobile in-service equipment while others have laboratories for teachers and media specialists. Dissemination services are offered via print catalogs and periodic fliers. Utilization conferences and workshops are offered to the field.

Then, to complete the picture more fully, these centers do actually serve as libraries, in that materials are checked out and checked in as in the typical library. No doubt a larger number of them carry out their function primarily in the non-print field, though on the other hand, many do handle print items.

The media function, without doubt, is a key service in a large number of regional educational service centers.

CHAPTER 17

AUDIOVISUAL SERVICES

1. Introductory comments

In this chapter some basic considerations will be discussed as they relate to the audiovisual component of a regional educational service center. Obviously this work cannot treat all the facets of the operation of such a unit for it is out of its province. However, certain phases of the program are discussed in order that the reader obtain a more complete viewpoint of these units.

Certain types of audiovisual services are of such a nature that the regional approach to their usage is virtually a necessity, unless the schools are part of a wealthy and/or large district. Even though the emphasis of this paper is on regional programs which are geared primarily to those areas that cannot maintain a complete program on their own, some of these more exotic and expensive programs are discussed and illustrated in order to present a complete picture.

2. Some procedures of the media component

The defense of the audiovisual approaches to education is not the prime purpose of this paper, though a statement will be made as an introduction to the thoughts being rendered in this section. A commission of the United States House of Representatives says:

> The Commission believes the problems of teaching and learning could yield to an organized and systematic attack, and that the refinement and imaginative use of instructional technology could contribute signally to the success of that attack. Certainly the solution of education's problems is as critical for the nation's future well-being as is a cure for cancer, heart disease, or stroke, or the development of more efficient techniques of growing and harvesting wheat (C60, 43).

The literature is replete with the needs for new and fresh avenues of instruction. Actually few argue against the values of audiovisual media and its application in the educational scene. Probably one of the more important concerns is how to pay the bill, for audiovisual hardware and software are expensive. Costs run from reasonable to exorbitant, yes, even astronomical in some cases.

What then is the answer? No doubt there is no single answer, but many feel that cooperative action may be part of the answer. It is thus that this paper is written. Ideally each school would have all the audiovisual equipment and materials needed to carry on their program whether it be special education for the handicapped or enrichment programs for the gifted, and programs for everybody between! Obviously this is a bit hypothetical at this juncture. There is much to be done before that situation is reached.

> It is for the purpose of managing those resources that are available and bridging the gap between present rarity and future permeation of audiovisual materials in education that the Media Component of Education Service Centers has been established in Texas (T16, 2).

Obviously cooperative action requires the utmost of human maturity and common sense if it is to operate efficiently and smoothly. Administrative finesse is required for human relations are required for each step of the route. There must be give and take.

This cooperative action must be accomplished within the media program as well as with other facets of the regional education service center.

> Cooperation is the essence behind Media Component programs; therefore, definite working and communicative relationships should exist between the Media Component of the Education Service Center and the other agencies and groups (T16, 3).

It goes without saying that without this proper attitude and open communications, any project is bound to fail. The human element is crucial in the operation of a facility.

What should be included in a media center? A California guide lists the four following categories that should be available in the larger media centers:

1. supervision and in-service education
2. procurement and distribution of equipment and materials
3. maintenance of equipment and materials
4. budgetary responsibility for capital outlays for permanent audio-visual facilities and installations, audio-visual administration, and local production (C8, vi).

Some aspects of this listing are discussed in other sections of this paper such as the chapters on specific area services. In regard to procurement, the selection process is key in importance. Elsewhere mention has been made of this. It can bring about misunderstandings, jealousy and non-cooperation if the selection process becomes a dictatorial procedure. All involved in the regional program must have some say in how the money is invested.

On a larger scale the Educational Products Information Exchange Institute (EPIE) is an independent organization created to assist educators in the selection of materials, equipment and systems by providing unbiased reports on these products. It is financed by cooperative cost sharing by various segments of the education field. The EPIE Forum is the medium of dissemination on product information (Y3, 14-15).

Library Technology Reports is a similar service provided by the American Library Association and the cooperation of the Association for Educational Communication and Technology (A.E.C.T.), both of which are voluntary and really cooperative in basis.

The selection process then becomes a cooperative venture in several ways. Those involved in the administration of the program are ultimately responsible for accessions but these decisions have been born by many. Those who will be using the equipment and materials will have had their say. Standard works will have been consulted, such as the cooperative references mentioned. In some cases local testing and evaluative programs will be utilized, such as that used in Portland, Oregon (G33, 38). The total, final decisions have been based on cooperative effort each step of the way.

The actual mechanics of the media distribution program are somewhat involved. The details are not of concern here, but the general activities may be of interest. The steps of the audiovisual supply cycle may be listed thus:

1. Booking: Materials requested must be reserved for the specific time desired.
2. Assembling: On the date of delivery or use, materials must be assembled and packed.
3. Charge Out: Materials to be delivered must be charged out to the requesting person so that an accurate account of them may be maintained.

4. Delivery: Pick-up and delivery service provides the means of getting the material and equipment to the place of use.
5. Receiving: After use, materials are returned to the audio-visual center.
6. Inspecting: Upon return, both equipment and materials must be inspected for damage. Continuous inspection and preventative maintenance will keep equipment and materials at the peak of operating efficiency.
7. Charge In: After inspection, the materials and equipment are charged in. This keeps records current.
8. Storage: Proper storage promotes longer life of both materials and equipment. It also provides easy maintenance, booking and assembly (B27, 15).

Though the sequences may vary from center to center, in general this is a very typical approach to circulation and the accompanying procedures. There must be a system that is efficient or the entire operation will fall apart. Yet, with all the efficiency of circulation, the human elements must be concerns of the management of the center. If the red-tape is significant and obnoxious, the materials will not be utilized as they should. It must be easy to obtain the items needed by the teachers.

It is self-evident that a materials center could have literally thousands of dollars worth of media stocked on its shelves, but if the educators are not aware of it, it will but gather dust. Tanzman of Nassau County, New York has an interesting viewpoint on this:

> Let's stop talking about AV as if it were an 'innovation.' The value of AV is a well-documented fact. But materials and equipment will never become the conspicuous part of instruction they should be, as long as administrators insist on stockpiling them in a closet somewhere--no matter how carefully they emphasize, at teacher orientation meetings, that 'you can find everything you need in Room 103' (T2, 72).

In-service education, advertising and of course well planned orientation meetings do help, but active participation in the total program will no doubt make greater impact upon the teacher and his or her utilization of these resources whether they be local or regional. The educator must be sold on the concept and then be fully aware of what is available and how it is acquired.

One of the processes that is making it more practical for regional centers to inform their clientele of the holdings is the book catalog. The system is being used with single schools such as the Glenbrook South High School in Illinois. They offer print-outs from the data processing center which include holdings in each basic subject field plus a section on audiovisual materials on hand. Faculty members can study their own section to find out what is available. In the center a teacher can even have special print-outs produced for pupil bibliographies. A new sheaf catalog is published each August and a supplement in January for the eleven subject sections and the 12th section on A.V. is supplemented as needed (W15, 42).

Further discussion on book catalogs and union catalogs is found in the section on cataloging in the library chapters. No doubt the book catalog has done much to increase usage in union or regional centers. To reproduce cards for each of "X" number of patrons is not very practical if the "X" is very numerous, while the book catalog cost comes down on a per unit basis as the number of copies increases.

The use of collections has increased, according to some empirical evidence, when a book catalog is available for each major use area. The point of this paper is not to give all the pros and cons of the book catalog, but rather to point out its value in regional programs and ultimately to the consumer and his ability to find out what is available on short order (L10).

Assuming that the media center is efficient and assuming that the patron is convinced that this is the channel he wishes to use and, furthermore, assuming that he is fully aware of what is available, the next step is: Are the media available? It would be good if each center could say as with the Oregon Project Springboard:

> Most resources are instantly available in the school instructional media centers that support classrooms supplied with a complete set of audiovisual equipment (M48, 36).

Of course this is ideal, but in fairness it must be said that these eleven schools are part of a demonstration project with extra funds voted locally, additional state and federal funds and funding from private corporations. Nevertheless some things can be learned from this project, such as the need for easy inter-change of equipment, materials and ideas. Also expect higher demands for equipment and materials than would normally be expected--if they are available, as they were in Oregon. "Forget administrative and teacher convenience; worry much more about learner convenience and reaction."

To help complete the media collection, each typical school building in the Oregon Project Springboard has collections of 300 to 500 motion pictures, over 1 000 filmstrips and several hundred recordings, both tape and disc. Transparencies are numbered in the hundreds. Of course with such availability it is no wonder that films have been used as many as 30 times in one year (M48, 36-39).

Obviously this is virtually ideal. However, it is this very lack of the ideal that has pushed schools and school districts into cooperative action to do the next best thing: share in purchasing the items and of course share in their utilization and all that it entails. Few will argue that cooperative/regional programs are definitely the best or only approach, but under the circumstances they appear to be the best solution all things considered.

From the vast number of regional centers that are in operation and their continued growth, the concept must be working. With due concern to each facet of the operation of the center and with special emphasis on the media phase; such a center is able to have the items that are needed and to have them, generally speaking, available when they are needed. As noted previously they are. With proper operation the regional center can come relatively close to such programs as the Oregon one described. Very few schools or districts could begin to have such media services on their own.

In order for the individual schools to have the materials that are available at the regional center, there must be an efficient system of delivery. Many regional service centers deliver media on a weekly basis, while others have deliveries more often. A typical system would be to deliver an item one week and pick it up the following week. Some centers use up to five routes with a different route each day. According to one study, the majority of these routes were run by privately owned station wagons. This study of 1965 covering some schools in Pennsylvania, showed an average wage of $10 to $12 per day and reimbursement of from 8¢ to 10¢ per mile (B12, 84).

Some districts used the custodian as the delivery man and paid an average of 7¢ per mile. Those districts and centers using their own vehicles incurred higher delivery costs than those utilizing other sources (B12, 85).

Another survey in Michigan showed the following pattern in the regional centers as regards delivery method:

U.S. Mail	5
Own vehicle	7 (own or contract services)
United Parcel Service	1 (a commercial carrier)
Pick-up	8 (a number of centers have pick-up plus another means of delivery)

(K4, 17).

Still another approach is for the school or individual to care for the pick-up and return himself. Of all the methods utilized in the delivery and pick-up program, Becker found no preponderance of one method nor did he note any trend (B12, 40). Bus Package Express is another approach that might be considered.

Other facets of the media program are considered under the section on pool purchasing, but should be mentioned here for many funds can be conserved by standardization of equipment, and in so doing save not only initial investment by quantity buying but lower maintenance costs through efficiency of repairs and preventive maintenance.

Much good does come through cooperative action and no doubt there is much intrinsic good in the concept. Cross-fertilization of ideas is healthy. The regional idea is good per se in many ways.

3. Audiovisual equipment

The equipment to be found in the media component of a regional educational service center most likely will be found to fall into roughly six categories:

1. Equipment for storage, inspection, cleaning, and repair
2. Preview and listening equipment
3. Equipment for circulation to schools
4. Production equipment
5. Transmitting equipment
6. Electronic computer (B48, 289-290).

Not all types of equipment will be found in every regional center for the simple reason that each regional educational service center is established with differing objectives which are based on regional needs. Though in some cases a center may have been, as it were, mandated into existence, yet, others evolved from a known need. Whatever the etiological origin, the centers exist in varying forms about the land. They are not static, but dynamic institutions by their very basis of existence. They have been brought into being to help solve some of education's problems, especially in areas that cannot provide a first quality education on their own.

Equipment for category number one will also vary according to the purpose of the center. Some of the types of equipment that might be found in a center are listed:

Automatic film-inspection units
Shop with repair equipment, such as power tools
Shelving, cupboards
Film cleaning equipment
Electronic repair equipment
Mechanical repair equipment
Parts storage

Consideration must be made for the repair of various audiovisual equipment that cannot be repaired at the local schools. In some locales the delivery personnel are equipped for minor repairs, bulb replacements, tape preventative maintenance and minor adjustments, thus obviating the moving of equipment to the center's shops.

Though some repairs are made at dealer shops, the major proportion of media centers do most of their own repairs. Again the ratio and type of repairs will vary from place to place. It is not the purpose of this study to determine which and what, but rather to state that it is being done in many regional centers, therefore these elements must at least be considered in the planning of such centers.

Preview and listening equipment is found in some centers, again depending upon local desires and practices. Typically these facilities are utilized by professional educators, though in some places they are used by the public also, or possibly the pupils themselves. Among the equipment available would be the following:

16 mm projectors--standard or rear-view
Tape decks and recorders, or just playback units
Overhead and opaque projectors
Super 8 mm projectors--standard, loop or cartridge--screen or rear-view
Cassette and cartridge playback or record units
Disc playback equipment

Teaching machines of various sorts, both linear and branching, with and without various components of A.V.
Sound-slide units
Filmstrip and filmstrip cartridge projectors--screen or rear-view
Specialized cassette equipment, such as audio-comparator units, repeaters, etc.

The list could be continued, but in essence the center has those items that will assist the patrons in the previewing of available software at the center. It is also used by the center personnel in their checking of materials, previewing items sent on approval and in public relations work (E14, 50; B48, 289-290).

The circulation of equipment to the various member schools is not universally practised. For one reason, most schools have the basic equipment needed for most software, such as projectors, tape players, phonographs and overhead projectors. The literature has mentioned that some centers have back-up equipment in case of equipment failure. For instance KUON-TV at the University of Nebraska occasionally loaned their Ampex 1" videotape recorder to colleges that had equipment break-down (P39). No doubt this practice is noted in many areas where the human element has not been lost--a very real possibility, if not probability in bureaucratic, educational empires. The fear of these "monsters" of bigness is one that is noted over and over again in the literature.

Operation PRIME in Maine found that the equipment circulation program was one that had to be curtailed, even though this was one of their objectives originally.

> . . . this objective had to be eliminated as our final negotiated budget precluded our acquiring sufficient equipment to achieve this objective (G41, 96).

One of the purposes of the regional center is to supplement services and this is found in the realm of equipment also, such as exotic equipment that is not used daily, or equipment that is excessive in cost for the individual schools or districts (B48).

Production equipment is found in many media units, if not most. Many items can be purchased from commercial sources and no doubt much of what is needed in instructional programs can be so purchased. In many situations custom designed and produced materials are needed. Additionally, many items can be produced locally at a much lower cost. For instance, the A-M Corporation has a unit that can print transparencies for approximately a penny each whereas many commercially produced transparencies of equivalent quality cost several dollars each. With this much of a differential, it is no wonder that some media centers have gone into the production field with enthusiasm. Obviously a savings is not made on all productions, for in some instances a commercially produced item may be lower in overall costs, when all factors are considered.

Though the types of production equipment will vary widely according to the type of work involved, the following list is typical:

tracing table
diazo
enlargers
cameras
laminator
lights
tripods
lithograph
photo modifier
paper cutters
Embosograph
tape recorders
copy stands
Headliner
film splicer
dry mount press
slide duplicator
spirit duplicator
copy machines of various types
cassette and cartridge recorders
audio tape duplicator
mimeograph duplicator
motion picture camera
primer typewriter
(E14, 50; E29, 548).

Obviously the list is not exhaustive but fairly typical of what might be found. The types of work produced tend to evolve according to local and regional needs.

The materials and equipment needed for transmitting of AM, FM or television will be discussed in the chapters on telecommunications and television. In some situations the broadcasting service is part of a regional educational service center per se, while in others the television facility is an independent cooperative venture, albeit also regional in nature, though the latter more likely is a larger region.

The computer is discussed elsewhere also, though at this juncture it would seem wise to note that it is a very expensive piece of equipment, or more properly, a collection of equipment. Because of the high costs involved, many groups rent time on a large unit rather than maintain their own equipment. In other cases the facility may have their own computer but also rent time on a larger unit for special applications (A23).

In general it might be said that equipment is purchased for use at the regional center for production, office use, previewing, transmitting, repair and maintenance or in data processing on the one hand; or it is used in circulation among the schools for their use (B48, 289-290; E14, 52).

4. Graphics production and general media preparation

Media production facilities are located in the individual school where possible. The more sophisticated equipment and preparation are in the district center. The regional center is the next step up, that is, if the area can support such a program at each level. Obviously the entire hierarchy may have to be moved up a step in a poor or scattered region. In areas such as Santa Clara County, California with its million inhabitants, the former arrangement works fine in most sectors of the county. No graphics work is done at the intermediate level center located in San Jose, but rather each district media center cares for the production needs (S9). On the other hand in such regions as those in Red Oak, Iowa, Chadron, Nebraska or Pendleton, Oregon the population base will not support anything comparable to that in Santa Clara County, California or, say, the unit in Montgomery County, Maryland. Both of the latter areas have wealth as well as population, whereas the others mentioned as examples are in rural regions. In these days welath is generally not found in rural sections of the land.

The discussion will continue with the rural and less wealthy regions in mind, primarily. The types of materials that are prepared in the media centers vary, as noted; however, the following list is of the more common types of productions:

1. Printed matter: instructional sheets, booklets and school publications.
2. Photo enlargements.
3. Overhead transparencies.
4. 2 x 2 inch color slides.
5. Polaroid slides, 3-1/4 x 4 inch.
6. Filmstrips.
7. Audio programs on tape.
8. Television programs on videotape.
9. Motion pictures, 8 mm cartridges and 16 mm film footage (E29, 367).

The extent of each is dependent upon the facilities, personnel, budget and desires of the regional member schools and districts. The production of these items will usually be implemented either by a hand operation or via the use of equipment. Hand operations will use the following, according to Erickson:

1. Use lettering materials such as pens, brushes, scribers, drawing boards, inks, crayons, and pencils.
2. Use pressure-sensitive sheets, tape, symbols, patterns, and other drawing aids.
3. Use stencils, stamps, and pre-cut letters.
4. Use assorted papers and acetate sheets (E29, 368).

The hand operations, of course, require considerable artistic skills, though many aids have eased the requirements of skill. The pre-cut letters, stencils, stamps, rub-on letters and grids and similar aids have been a boon to the do-it-yourself graphic artist who is limited in skills as well as being a work saver for the professional. Many centers have artists with professional qualifications, though it is interesting to note the handsome work being produced by those with more limited backgrounds.

The list of types of production that can be produced with the use of equipment is considerably more extensive. Again Erickson, a well known media specialist, lists the following thirteen common operational techniques:

1. Make overhead transparencies by the
   (a) photocopier method
   (b) diazo-ammonia method.
2. Duplicate print-medium masters (spirit-master and mimeo stencils).
3. Use photography to produce still-picture media:
   (a) use regular and Polaroid Land cameras
   (b) copy masters (handmade flats, layouts or paste-ups)
   (c) make negatives
   (d) make film and paper positives
   (e) make slide duplicates and alter camera angle and light values.
4. Use photography to produce motion pictures:
   (a) 8 mm cartridges, both sound and silent
   (b) 16 mm footage, with magnetic or optical sound tracks.
5. Mount instructional material on paper by dry-tissue methods.
6. Laminate instructional materials in plastic.
7. Mount slides in frames and between glass plates.
8. Mount transparencies using suitable cardboard frames.
9. Put film footage in cartridges and on appropriate reels.
10. Record sound on magnetic tape.
11. Record television programs on videotape.
12. Program pictorial and sound components.
13. Select, sort, splice and edit film and tape (E29, 368).

Many of these operations can be done locally, particularly in the making of simple transparencies with a thermal copier, the simple photo copy stand using a cartridge 126 film, the polaroid slides and similar simple types of production. Yet, even here a harried teacher in a small mountain school has neither the time nor the equipment for even this. The role of the regional center must take these situations into account.

The 6 000 teachers and 130 000 pupils and students in kindergarten through junior college in Fresno County, California have a service that is found in many areas, though not as common as those just listed. The media center has a small printing operation that recently increased their output three-fold without increasing their personnel. This unit is located at the Fresno main office. This printing unit uses a total copy reproduction system for short-run needs and for the longer runs an offset press with photo-direct platemaker is utilized. They have three full-time employees plus two part-time men as needed.

The county runs its own study guides, program texts and such materials for its closed circuit instructional television network. They also provide printing service for the Data Processing Center for Pupil Personnel Services, which encompasses a seven-county region. Plans are to print materials for the non-graded primary schools and for individually prescribed instruction programs (A2).

Electronic stencil cutters are a relatively expensive item that are utilized in some media centers. A reproduction of a given form can be made in a few minutes onto a plate for printing purposes. Such equipment seems admirably suited to regional programs. Service is available on short order, thus negating long waits for materials that must follow traditional graphic production techniques (A20; A43).

Another phase of the production of media materials is that of production by the teachers themselves. Many media centers on all levels allow or even encourage the teachers to come to the media center and produce that which they need. Costs are born by the center or frequently the only charge is for the actual cost of the materials used with the equipment usage being born by the center, which ultimately is paid for by the member schools. Few media centers attempt to make a profit off the teachers for that would negate the very purpose of the center.

In-service education is wound up in this concept, for many of the teachers in the schools have not been amply exposed to that which is available and to that which can be quite easily produced. It is here that regional educational service centers and their media sections have been found utilizing the in-service opportunities. The centers typically have a well-rounded graphics and production area in which the educators may become acquainted with that which will be of help and also actually participate in production of items that will assist them in their teaching.

5. Remote access information systems

> The Dial Access system is a new development in education with infinite potential. It is conceivable that in a few short years location will not be a crucial factor in education. Information of any sort will be instantly available to students residing in all parts of the nation through DIAL Access systems tied into computer and television networks (D15, 346).

The DIAL access systems and ramifications of this concept are not visionary, but in reality exist and are in operation though not to the extent as suggested above. Various schools, colleges and universities have such set-ups. Among these are Oklahoma Christian College, Ohio State University, Oral Roberts University and Ithaca College. Public schools in Beverly Hills, California, West Hartford, Connecticut, Omaha, Nebraska and others have DIAL Access systems. Forest Park Community College in St. Louis, Missouri is another such unit (C55, 26; C70, 20, 23).

One of the programs using this concept is AIMS which was funded by E.S.E.A. Title 111. "The objective of the AIMS project is to support teachers and pupils through access to instructional materials and services under modular scheduling" (K5, 5). The key to the system is a DIAL Access System located at Burke High School in the western portion of Omaha, the largest city of Nebraska. Work has been done with "learner-paced materials," which is in harmony with much of the educational thinking of today. Emphasis has been with audiovisual sources, both audio and visual.

The program was under a three year funding base with the final year implementing the tie-in of three other high schools via microwave. When the system is completed, 30 per cent of the secondary pupils of Nebraska and western Iowa will be able to use the facilities which are conveniently located on the eastern border of Nebraska (K5, 5-6).

Several examples of DAIRS (Dial Access Information Retrieval System) as being used in collegiate institutions are now given because of the possible implications to the field of education as a whole and even more so to the smaller schools. Ithaca College in the state of New York has 3 800 students. Their Instructional Resources Center is housed in a 3.8 million dollar building with everything imaginable in audiovisual equipment, audio-tutorial laboratories, film library, etc.

The DAIRS system is available by dialing from a dormitory, infirmary, library or classroom complex. 120 programs are available. Professors can have their lectures recorded automatically as they are rendered. There are 136 retrieval stations in ten buildings about the campus (C55, 26). The versatility of the system is quite amazing for without much effort a professor can have his lectures recorded so that the students can readily review the materials or obtain them initially if sickness precluded the original hearing. It is also very possible that a student in one class might find certain lectures of value to him even though they were given in another class session. The enrichment possibilities are extensive.

A similar program at a large state university is in action at Ohio State University with its 42 000 students. Quite obviously the planning involved is ponderous, especially in the basic and required general education courses in which there are dozens of sections. Video-tapes, live T.V. and audio-tapes are helping to ease the problem. The channeling of these media through DIAL Access systems makes it possible to reach 386 positions in 35 different buildings. Even fraternity and sorority houses rent lines so that member students can dial for lessons. 92 programs are available to the students with each running up to an hour in length. Many lessons are repeated many times each day via video-tape. It might be mentioned that in a fully implemented program these video-tapes could be repeated at any time and as often as needed. In some cases the T.V. professor meets once each week with those students who wish to talk to him personally.

In this situation the video and audio fields are being utilized to help solve the problem of personnel distribution and the use of the limited number of professors to teach such vast numbers of students.

With the use of DIAL Access, in conjunction with the video and audio-tapes, lessons and reviews are accessable to students in many varied areas at almost any time (B6).

A specialized program using the DIAL Access concept is found in southern California where six participating districts cooperate in the operation of the Southern California Regional Occupational Center. The area's school enrollment is over 100 000 with 32 high schools being served by the center. Two of the high schools are non-public. The districts involved are in El Segundo, Palos Verdes, South Bay, Torrance, Centinela Valley and Inglewood. The purpose of the center, simply stated, is to teach "high school students an occupational skill at the job entry level."

The program is very heavy on audiovisual aids and self-instructional approaches via DAIRS (Dial Access Information Retrieval System), simulators, animated panels, television, films, transparencies, teaching machines and similar devices. A task analysis was carried out and an entire system approach was used. This approach is being found more and more in the literature.

The curriculum was cooperative in its inception for various resource people were utilized, such as laymen and industrial representatives as well as all school personnel involved in the program. No doubt this type of cooperative action would more likely render a successful outcome than were it mandated from some "higher office."

The pupil spends four hours each day in his home high school and three hours at the center. The personnel of the center see the day when it will be in operation 24 hours daily, six days each week in order to accommodate the pupils desiring training. This basic idea of part of the program being at a home high school and part at the regional center bears consideration in programs needed for isolated and rural areas. In addition, DIAL Access and other A.V. programs, as outlined in this paper, would no doubt do much to build a more substantial program in these smaller school areas. One can but wonder, if the schools in this southern California area, which are part of one of the most vast metropolitan areas in the world, see the need for cooperative action and the need for sophisticated equipment, how much more is this type of thinking needed in those more isolated areas where the resources are generally much more meager?

It should be mentioned, in fairness, that the cneter just mentioned is more costly per pupil to operate than a traditional vocational school because of the sophisticated equipment and advanced audiovisual devices; however, it is less expensive than a core of chronic unemployed are to the economy of the area. Obviously every region would not have to become as involved as this center in order to achieve representative educational growth (S65, 47-50).

The various levels of sophistication in the DIAL Access concept are varied, ranging from relatively simple audio response units that serve but a few terminals to units that serve a multitude of users with both audio and video programs that are available at any time, even when others are using a particular program inasmuch as high-speed duplicators make copies of the original for hearing or viewing by the patron. As might be suspected, these units run into tens of thousands of dollars in cost. Few will argue that the DAIRS program, even in its relatively simple forms, is low cost. Without doubt it requires a high financial and population base in order to operate. This is one big reason why such systems are called systems for they not only utilize a large data bank in audio and possibly video forms, but usually have an extensive terminal hook-up.

Another approach to access that does not fit those systems just mentioned but does utilize many aspects of modern technology, is that of the Bay Area Reference Center in the San Francisco area. BARC is the San Francisco Public Library's "venture into regional reference service." It is a "Synergized Reference Service" (C53, 1379). It includes a facsimile network in which specialized materials such as items of interest to government officials and business personnel may be obtained on short order via electronic reproduction. Though at this time the cost is over a dollar per page for these reproductions, the possibilities for the future are very encouraging and even currently when the need warrants it, for such service may be a virtual life-saver.

The Bay Area Reference Center (BARC) is an experimental venture to provide back-up reference service to some seventeen member libraries of the North Bay Cooperative Library System (NBCLS). These 17 members of the oldest library co-op in California (1960) are scattered over a six-county area with some as far as 125 miles from San Francisco while others are as close as 12 miles away in suburbs.

The organization uses teletype communications over regular telephone lines. The North Bay Co-op has three area reference centers in Ukiah, Vallejo and in Santa Rosa, the latter being the headquarters. The more technical reference problems are sent to the BARC office at the San Francisco Public Library.

A master plan for the California libraries was drawn up with four levels of service. The first is the local community library; the second would be the reference centers to supplement the local library; the third would be the large regional libraries such as the BARC center in San Francisco and lastly the state library in Sacramento. All levels have been progressing, except the third level and the BARC center is an early entrant into this area.

Here again is seen the concept of regional centers for a specialized service. Then too there is seen the utilization of an advanced technological process to speed service. Facsimile reproduction service is in action at this center now, but no doubt the "seers" find much in this genesis to promote visions of extended library service to people all over via technology (C53, 1379-1384).

A more specialized type of reference service is also needed for the professional educator.

> Educational research affecting instruction has increased at such a tremendous rate that administrators and teachers require ready access to professional literature which reports current research as well as developments and trends. Even in larger school systems having central professional libraries for teachers, current professional literature needs to be available in the individual school library (T3, 2).

As mentioned elsewhere in this paper, several services are available or have been in the experimental stage. The unit in Boulder, Colorado not only serves that area but other states (B42). The MOREL project for Michigan and Ohio had elements of rapid retrieval (M39). The Educational Resources Information Center (ERIC) and its approximately 20 clearinghouses about the nation are at the heart of most professional education information programs. The ERIC materials are filed in computer banks thus making it a natural for rapid retrieval systems (E13).

Relatively small desk information retrieval systems should be considered when speaking of this area also. One such unit is the Remington Rand "Remkard" which is in the $5 000 range and can store up to 75 000 pages of microfilmed material. It is available within four seconds of pushing the button. This unit is also available in a reader-printer version for rapid print-outs. A company brochure gives the following things that such a unit can do for one:

1. Provide access to thousands of pages of material
2. It can retrieve any one of the 75 000 microfiched pages within four seconds
3. It can save on computer time as well as complement the computer
4. It maintains "absolute file integrity" (R7)

The microfiche are contained in a carousel type unit. New models will be constructed so these carousels may be changed, thus adding to the versatility of the equipment.

With the advent of more sophisticated telecommunications equipment it is possible for much, if not most, of the equipment that has been mentioned in this section to have its usefulness extended via microwaves or cables. Through these avenues, modern technology is coming to the aid of the smaller school and the isolated pupil. The needs of the professional educator are also being more adequately met. Much of this type of media is in the experimental stage or early evolutionary stages; however, it stirs the imagination of the innovator.

6. Computer-Assisted Instruction

It seems evident that Computer-Assisted Instruction (CAI) has certain merits. It is not the purpose of this paper to discuss the various pros and cons of the approach other than to state that the literature seems to indicate that it is as good as other approaches or possibly better (N43).

The computer has been used in simulation games. For instance sixth graders are using this approach in their social studies classes in Yorktown Heights, New York. They are connected by teletypewriter to a computer in Syracuse, New York, which is 200 miles away (B14, 20).

One of the major experimental programs in the West has been at the Brentwood School in East Palo Alto, California. This school is located in one of the lowest socio-economic areas of the San Francisco Peninsula, which is, as a whole, one of the richest areas in the nation. The school is connected by cable to a computer at Stanford University, which is but a few miles away. The IBM Corporation has a representative on duty at the school who assists with the program.

A rather interesting program, which has definite regional implications, is the experimental project of Stanford professors Patrick Suppes and R. C. Atkinson in which the Stanford program is extended 1829 miles to a 13-school system at McComb, Mississippi. This system contains mostly poor, predominatingly negro youngsters who reportedly are doing well on the program which includes remedial seventh-grade mathematics, ninth-grade algebra and symbolic logic for the gifted (B14, 19).

Computers are also used in 107 different secondary schools in all areas of Minnesota. Minneapolis is the first major city in the United States to use computers in all junior high schools and high schools.

The twin cities of Minneapolis and St. Paul are tied into TIES (Total Information for Educational Systems) via telephone lines between the computer and teleprinters in the schools. This is but another example of the inter-relationships between and among the various types of media. Cooperation of either a voluntary nature or via a commercial intermediary becomes more and more a must.

Mankato State College, which is also in Minnesota, serves 40 schools in south-central Minnesota with its computer. Schools in and around Alexandria, Minnesota use keypunched cards that are transported from the classroom to the computer (C64, 7). Cooperation is seen in the schools being able to work together in these programs and it is also seen in the willingness of schools of higher education to act as centers for such activities.

Another computer project is the Improving Small Schools Project with headquarters in Portland, Oregon. Among their products are over 2 200 pages of programmed mathematics and 500 pages of machine language stored in a computer. This material has been used on a trial basis in two small isolated high schools. Proximity of the school to the computer has little advantage in computer operations. In this way a rural or isolated pupil can have the same advantage as an urban pupil as long as he has access to a terminal. Obviously hundreds of pupils may use the computer via a terminal at their locale and the educational umbellical cord, the telephone cable. There appears to be much evidence that this type of operation is a valuable adjunct for the small and isolated schools (N43).

It is also possible not only to program the computer for various outlets scattered about a region or even the nation, but via the cable to synchronize both audio and video instruments in order to gain further amplification of the lessons (C61, 57).

Unfortunately CAI is expensive at this juncture. Project LOCAL (Laboratory Program for Computer-Assisted Learning) is sponsored by five secondary schools in Massachusetts. Initially they used time-sharing commercial equipment, which is the avenue being used by many schools about the country. Currently they are using five small general-purpose computers and by so doing have cut costs by 75 per cent. The per pupil cost in 1968-69 was still running about $30 per hour, including maintenance (F5, 8-10).

Another study on CAI in the academic high schools of New York City showed the following:

> . . . it may be asserted that there would be
> * A reduction in time to learn of 20%
> * A reduction in average teacher costs of 10%
> * A scheduling plan for peak usage of CAI facilities by no more than 50% of total students enrolled; and
> * Justification for an investment in CAI facilities of about $3 720 per student enrolled (G24, 47).

To one reared on the economy plan, these figures appear rather astronomical. The Committee on Economic Development states:

> . . . at an annual cost ranging from $9 billion to $24 billion, large-scale use of computer-assisted instruction requires too large an expenditure in relation to possible benefits at this time. Only a gradual acceptance of computers in instruction is realistic and then on an experimental basis, especially since this technology is rapidly changing. However, the record of United States industry for ingenuity in the rapid development of new technologies strongly suggests the likelihood that costs will be brought down in this field in the not-too-distant future, opening up the broader use of computers as the experiments with their use demonstrates its capabilities and potentials in instruction (C61, 68).

Without doubt, CAI is a field in which one must have large sums of money. The above statement was made in 1968 and the situation has not changed radically, as of this writing.

There is a partial answer, however. Area C Educational Development Center of Pennsylvania offered a computer-assisted course in new mathematics and its teaching to teachers. This course was a cooperative venture of the area center, Appalachia Educational Laboratory, Pennsylvania State University and the International Business Machines Corporation (IBM).

103 teachers benefited from this course for which college credit or credential credit was given. The report states that this course, in its CAI format, could not have been given "but with 25 districts cooperating it was possible" (K15, 10-11).

Thus far those schools utilizing computer-assisted instruction have been doing it, for the most part, via two avenues: (1) federal or other grants for the experimental program, or (2) regional cooperative programs whereby each contributes towards the common project.

7. Museums, planetariums, special collections

Collections of art, artifacts and other types of specialized items are found in all parts of the land. The vast majority of teachers utilize those collections that are in their vicinity by the use of field trips. Additionally the schools use planetariums, zoos, telescopes and similar cultural and scientific facilities for the enrichment of the school curriculum. Unfortunately many schools have regulations allowing but one or so days per year when these trips may be taken and thus the trips are but a taste of what is available.

Because of the short time allowed for trips, the inability actually to have available items for relatively prolonged study, the great distances often needed to find appropriate learning experiences and similar problems, educators have had to find additional means of obtaining such items and facilities for use. Obviously the increased use of multi-media has done much to bring the flavor and interest needed for the classroom. Nevertheless, whenever possible it is best to have the realia, the mock-ups and the such available for the teaching process. They add interest and usually are a good motivator. Without doubt the learning is richer and, most feel, deeper.

Generally there are two approaches to solving this problem. One is to arrange for further cooperative programs with the local museums, planetariums, etc., while the other is to have a regular school-centered museum, planetarium, etc. Frequently the latter approach is the only avenue.

First discussion will center on the fuller utilization of the current resources. Here, as in most sections of this report, the exhibits are not considered exhaustive, but rather representative.

The Philadelphia Commercial Museum has special cases in which they send out items on various countries for use in the schools. The items include recordings, craftwork, products of the country and pictures (K18, 8). The Boston Children's Museum has done considerable work with young people's programs and in addition has developed MATCH kits which are currently available from commercial sources. These kits have a collection of artifacts and learning materials (B39).

Many cities have children's museums, children's zoos and similar programs that are geared to school-age children. The Detroit Children's Museum is but a block away from the Detroit School Offices. A small children's zoo is located in a park in Burlingame, California. The Brookfield Zoo in suburban Chicago has a children's zoo as does the San Diego, California zoo.

With the full recognition that public and private institutions do carry on very worthwhile programs and offer really significant services, it must also be realized that all too often there is an educational gap that the regional educational service center must fill. Again, wherever possible and practical the district or local school media center should carry the responsibility.

In order to be as useful as possible, the pupils should be able to have the items needed in the classroom whenever possible. If this is not possible, the media center, either on the district level or regional level may be able to do the next best thing. Obviously if a facility is already established outside the school environment and does in reality fulfill the needs of the schools, there is no need for duplication. All too often this facility does not exist, thus the media center must compensate for the deficiency.

The Grand Island, Nebraska School System has installed a planetarium for the study of astronomy, space science and inter-relationships with other areas such as the humanities, social science, etc. The unit has been used by many organizations throughout this area. Curriculum plans evolving from this unit are being shared with others through the Midwest (K5, 29). Obviously such a planetarium is not of the stature of the Adler, Morrison or Griffith Planetariums, but on the other hand the expenditures are considerably less also. For school purposes they fill the bill admirably. Various units are available commercially at a relatively reasonable figure, though it must be noted that few individual schools could afford such a unit on an individual basis. Cooperatively it is feasible--the same story as noted scores of times in this paper.

The Cleveland Supplementary Center is described as a "museum gone wild." Pupils are allowed actually to touch and run the things within the cneter, such as crawling around on an airplane, churn butter or feel large globes of the earth and moon Emphasis is upon the "do-it-yourself" concept, that is allowing the person actually to do it himself and learn by doing rather than read or hear about it.

A planetarium is located here, similar to the ones in Red Oak, Iowa and Grand Island, Nebraska and hosts of other places. No doubt the larger cities can afford the larger models, but nevertheless they are basically the same.

During each day approximately 375 youngsters visit the Cleveland center according to a pre-planned schedule which allows for four visits per pupil during the elementary years. Various exhibits and projects are found within its walls to be enjoyed by the 150 000 pupils that visit it each year. This is a massive project of evident worth which is available only because of large area support (C49, 82-84).

The Lehigh Valley Instructional Materials Center sends out stuffed birds, models, mineral collections and many similar items. Pupils are able to see the actual items that are spoken of in the classroom. Impressions are more indelibly made by the presence of realia, is a truth few would deny (K18, 8).

Similar services to the above are available in Dade County, Florida as well as in Los Angeles, California. In Los Angeles a teacher may obtain all sorts of realia in the field of science, both growing and wiggling. Science centers are located in various sectors of the city, thus giving ample coverage of the system (L30).

Konick has suggested that many museums have duplicate items that could be used in the establishment of branch museums in underprivileged areas. These branches would be operated in cooperation with the regional center (K18, 12). The regional educational service center is just what its name implies: it is regional. It is educational. It is a service center. Within its province it may act as a catalyst or it may be an instigator. It may coordinate the efforts of other agencies or it may produce the requisite service itself.

In the area of museums, zoos, planetariums and such types of public or quasi-public institutions, the regional educational service center plays different roles according to the local needs and desires.

8. Summary and comment

Generally speaking, the audiovisual media center is at the heart of a large majority of the regional educational service centers across the land. It is the most common denominator of these cooperative endeavors, whether a voluntary cooperative or as part of a formalized intermediate administrative unit.

It is safe to say that most of the centers offer those services that are needed within that region. These services will vary to a great extent, depending upon local resources, whether financial, personnel, facilities or in materials. A large proportion of the centers offer graphic production services, software loans and some sort of consultive services, either formal or informal. Some of the larger centers offer some of the more exotic hardware and accompanying services, such as DIAL Access, Computer-assisted Instruction (CAI) and sophisticated collections, possibly even a planetarium.

Because of the high costs in the audiovisual field, schools have been forced, as it were, to cooperate in the operation of the program. Prior to the great impetus in media, the regional concept was far from common in the educational field. It was at about this time that the intermediate units took on strong service aspects, with media services being central to most such units.

Regional educational service centers have taken on an importance of paramount magnitude in many of the areas in which they are located. Not only do they handle the physical aspects of circulation and production of media, but they also lead out frequently in the in-service and consultive fields. They assist in the purchasing of the hardware and local software, or in some cases actually are the pool purchasing agent.

The more advanced centers may have facilities for Dial access information retrieval learning systems as well as the paraphernalia for computer-assisted instruction. They may be a terminal for such advanced learning technology or actually be the seat of the equipment and its ancillary equipment and software.

Another service offered in some areas is the school museum, science cneter, zoo, planetarium or similar facilities that would be out of the reach of individual schools or small districts. If these facilities are available otherwise, there is hardly any need; but in so many areas these items, especially those geared to instructional usage, are not available. The regional center here does a service by either providing the service, acting as an agent for materials and certain services from larger institutions such as museums and zoos or possibly acting as a coordinator with the various institutions in the area.

The media component of the center is a keystone in most of the regional educational service centers.

CHAPTER 18

TELECOMMUNICATIONS

1. Introductory comments

The science of telecommunications has made gigantic strides in the last few decades. Within this story of growth, educators in many circles have been realizing the values to education, both from an instructional standpoint and an administrative viewpoint. It is not within the province of this paper to present a history of the implementation of various applications of telecommunications; however, some of the current developments will be briefly discussed inasmuch as they typically involve cooperative and/or regional action in many cases.

Educational and instructional television are aspects of the telecommunication field though they will be discussed in more detail in the next chapter. Again the reader is reminded that the concept of cooperative and regional approaches to the solution of educational problems is the aim of this paper and in particular as they may apply to the Seventh-day Adventist school system.

2. Telephone applications

The modern school would be lost without the telephone. This would be particularly noticed in the administrative functions of the school. It is being used all during the day in scores of ways, both externally and internally. In some situations the various offices and classrooms are connected by telephone extensions and in others there is an independent inter-com system. In some of these the speaker also acts as a long-distance microphone so that the teacher may answer inquiries from the office without moving a step from his teaching station. As a communications device the telephone is a must!

Particularly in recent times the telephone has been taking on functions of an instructional nature. One rather simple approach is the tele-lecture whereby the receiving station is a loudspeaker rather than an "earphone." Telephone personnel connect appropriate speaker enclosures to the telephone line so that the classroom as a whole may hear the words of a distant speaker. Feedback is available via the same telephone line. In this manner the hearers may question the speaker (B41; P1).

Another innovative feature of the telecommunications system is the Tele-writer. With this unit the writing of the professor on a chart is reproduced on a distant reproducer via the phone cable. This unit might be used for art, mathematics or illustrating of most any lesson with line drawings and figures (M8; B17).

In Missouri the Tele-lecture and Tele-writer are being used by 4 000 pupils within the Barry County Schools Cooperative Project. Various audiovisual aids that correlate with the classes are available in the schools. Much of the material is of an enrichment nature and is optional to pupils. Various colleges and universities within the state cooperate in the 25 weekly presentations. Cooperation is found on several levels within this program.

Carbon County, Wyoming, which serves six communities spanning 165 miles, uses the Tele-lecture approach on all levels of education--elementary through night-time in-service programs for the teachers. There is a monthly total of 220 hours of programming.

The Tele-writer is used in art classes, so that the pupils can visually follow the presentation of the instructor. One teacher can handle six classes at a time with a total of 90 pupils. The classes are also taped for further use by either pupils or teachers (14, 12-13).

Still another approach is the Tele-class program. With this system a special education teacher can assemble a class of 20 homebound pupils in minutes. The Tele-class network becomes the classroom. The Los Angeles Public School System uses this approach whereby the teacher has a console by which she can tell which child is speaking at any given time. She can speak to all pupils at one time or, if she wishes, may speak to a single pupil privately (B14, 11).

> With the teacher in constant, real-time control of a real class, the local network banishes discrimination in education because of physical disability. It helps youngsters who have troubles enough to join in and influence--and be influenced by--the mainstream of American education.
>
> This, too, is an aspect of democracy (B14, 11).

Among the rather unique applications of these telephone devices is that of three junior colleges--Dutchess Community College in New York, Foothill College in California and Miami-Dade Junior College in Florida and their inter-student council session which lasted for an hour. Monterey Peninsula College had a tele-lecture with the head of the Selective Service. A chemistry class had a class with their textbook author at the University of Oregon (J5, 31).

Technology and a cooperative program helped a small high school in Rhode Island. Block Island is a tiny speck of land in the Atlantic off the eastermost point of Long Island, New York, though it is located in Rhode Island. There are 500 permanent residents and one school serving grades one to twelve. They had difficulty in obtaining a teacher of the new mathematics, therefore they gained assistance from the mathematics teacher at Naragansett High School on the mainland. The mainland teacher instructs via the telephone using the techniques outlined previously. Pupils can hear as well as see the mathematics methods and in addition can ask questions and receive personalized answers (B14, 11-12).

The superintendent of schools for Perry County, Kentucky brings out some applications of this technology which have definite regional implications.

> Say, Leatherwood, you may not have a qualified math teacher who could teach physics or advanced science. At Combs, you may not have one. At Napier High, however, you may have a good, qualified person who may have but one or two classes in physics. By using telelecture, he could teach every kid in the county the more advanced courses and still have time for other classes (K8, 22).

Most of the applications mentioned have had this same underlying basis: the supplementing of the instructional program with expertise from various stations in life as well as from all geographical areas.

Among professional applications is that of nurses in Wisconsin who may dial via WATS (Wide Area Telephone Service) and obtain any one of 200 different six- to nine-minute tapes on a nursing topic. Libraries of these tapes are at Madison and at Milwaukee. The service is free and is available at any hour. The program is sponsored by the University of Wisconsin under a grant from the Wisconsin Regional Medical Program, Inc.

The response to the program has been encouraging with over 1 000 calls coming in each month. A similar service is also available to physicians under the aegis of the Postgraduate Medical Extension Department of the University of Wisconsin. Visionaries are looking to the possibility of Picture-phones and thus have the visual as well as the audio forms of instruction (N31, 31; B16).

Much of what is categorized as DIAL Access is really a telephone hook-up. Frequently this is internal, that is running from the wet carrel to the control room with the banks of tape players, which may be but a few feet away. In other situations the DIAL Access feature may be from miles away via a telephone line. For instance, this individualized use of existing informational materials via a phone line is routine in the Cedar Rapids, Iowa School District with its 28 elementary schools, six junior high schools and three high schools (B14, 9).

Similarly, computer terminals are connected to the central computer via telephone lines. The chapter on Audiovisual Services discusses this item further (P16).

From an administrative viewpoint the telephone in its traditional form is a must in daily operations of the school. However, some new innovations are available in this field also. The private line teletypewriter and the teletypewriter exchange (TWX) have provision for transmission of typed messages up to 100 words per minute. The rates are based on either a fixed rate or according to the distance involved. Many feel this is a savings in time that is worth the cost (M34, 75).

Telpak is a broadband facility for various forms of electrical transmission, such as the traditional telephone as well as teletypewriter or data transmission. Wide Area Telephone (WATS) enables the patron to telephone within various areas at a fixed rate per month on either a 15- or 24-hour day (M34, 75).

The WATS system seems to be of apparent value in regional and state programs of information dissemination via some form of direct dialing or through a DIAL Access system. The professional nursing and physician's service in Wisconsin is in this field of telecommunications. The implications to both professional education and to the field of education as a whole are immense (N43, 31).

It takes little imagination to see many possible applications of the telephone and phone cable hook-ups for many facets of the cooperative/regional concept.

3. Radio

In the past educational radio was utilized to some extent, though now educational and instructional television is in the limelight. Nevertheless radio still is being utilized. Much of what is presented may be listed as entertainment, though in many cases it is used for educational purposes. For instance, much of that broadcasted over FM, particularly those stations affiliated with universities and the Corporation for Public Broadcasting, is of an educational nature.

FM is still the chief channel for fine music broadcasting and quite typically carries interviews, political and sociological documentaries, historical vignettes and similar items of distinctly cultural and educational value (W9; S50).

Pasadena City College in Pasadena, California is giving students in modern language courses a very practical slant by installing shortwave radio receivers. With this innovation they receive live broadcasts direct from the eleven different countries in which they offer language instruction. Of course other disciplines gain much value from this cultural receipt, such as political science and the fine arts (J5, 31).

In the Upper Peninsula region of Michigan, which is sparsely populated, it has been suggested that they install a network of high-powered radio stations. These stations would utilize frequency modulation (FM) for the main channel and four additional voice-quality channels going along with the major carrier. This transmission is called Subsidiary Communications Authorization (SCA) and is used for closed-type programming and not for the general public. Return links could also be made available which would give talk-back facilities. This method has been used in the Albany Medical College in New York with their hospital seminar programs being transmitted throughout New York and New England. Obviously such a program would of needs be regional in nature (M34, 29).

A similar application has been used by the International Correspondence Schools. The problem had been how to get participation from students on broadcast lessons. What has been done is to use the major carrier FM broadcast for the instructional band and then to use the side bands for student response and a branching program with requisite remediation where necessary. A similar approach can be used on a television program, inasmuch as the FM frequency and the television frequency are similar (L15, 14). This later approach is at times referred to as FM being "piggy-backed." Signals for the FM use the same T.V. transmission towers, thus cutting costs considerably (M34, 34).

Though this study is of the United States, one can hardly mention educational radio without being cognizant of the radio teachers working in the out-back of Australia. In this program pupils who are hundreds of miles from centers of population are receiving instruction via radio. The implications for very isolated schools in this country are worthy of consideration.

Even though television is in the center of telecommunications, the place of radio should not be lost for there are applications in which the radio can do a particular job just as well as the T.V. and do it with less capital outlay as well as in lower production costs.

4. Other telecommunications approaches

As might be expected, much of what has been reported and what is reported in this section, is experimental in nature. In most cases the technology is here and in some situations it is currently being applied to educational programs. Obviously the point of this paper is to present what is being done or is in the planning stages that will benefit the smaller schools that will involve media and cooperative approaches to these solutions. Without doubt the telecommunications field has much to offer. In some situations the isolated school can benefit from many of these innovations without any formal cooperative or regional program, while in other places it is a necessity. Applications will vary though in almost any situation cooperative action was necessary at some stage of the program.

Among the many promising developments in the telecommunications field is phone-line transmission of television. Four junior colleges working with the Colorado State University offer engineering courses via this system. The image is received as a stationary image rather than a moving picture as on conventional television. It takes 50 seconds to receive the image but it can be kept on the screen as long as necessary and then a new image can be transmitted. This type of system is called Slow Scan Television.

Tye system involves over 150 miles of leased phone lines and connects Northeastern Junior College at Sterling, Arapho Junior College at Littleton, Otero Junior College in La Junta and Trinidad Junior College at Trinidad. They are considering the extension of the system to other areas of the state as well as a possible tie-in with the Colorado State University computer (S42, 32).

An idea that has been in the experimental stages since the 1930's is the facsimile newspaper and other types of written reports that are transmitted over a line or through the air. Of course the wirephoto as used by the news media is already in action. RCA (Radio Corporation of America) is working on a method whereby signals could be "piggy-backed" on a TV signal, without distorting that signal, and be received over common T.V. antennas, thus giving simultaneous video reception as well as print-out capability.

Among the possible applications are: news briefs, program schedules, presidential messages, syndicated columns, stock market reports, sports scores, charts and similar items. With but a little imagination, many educational applications could be made for ETV and ITV programs. Though this is not in production stage, yet the possibilities should be kept in mind for it is just such ideas, when implemented, that will no doubt make it possible for better education to be made available to rural and small schools. No doubt schools will have to work together in order to achieve these advantages (W41, 550-551).

In the television field, wide-band television transmission will give an image resolution of 1 029 compared to the typical 400 to 600. This is good for such applications as reproduction of microscope slides and similar science items where a fine line resolution would be very usable.

A narrow band-width transmission can be used for lower quality transmission. By use of this equipment an image such as a document or photograph can be transmitted and be on the screen for up to six minutes. LDX (Long Distance Xerography) can be used to send documents via microwave relays or over telephone lines.

Sylvannia has a blackboard via wire whereby a teacher can write on a 6" x 8" mat and have it reproduced in up to six other locations via telephone lines. With this device there is voice feedback, also.

All of the narrow-band approaches to reproduction, as they stand at this time, sacrifice quality, thus detailed material cannot be transmitted. Even though the various techniques need to be improved, the nucleus is present and experiments are in progress that make these approaches very appealing to the small and scattered schools and their application possible via cooperative action.

Large universities, state libraries, the Library of Congress and other institutions have vast storehouses of information, information available within the realm of present technology to serve people in remote and scattered areas. The information might be put in microform such as microfilm, microcard, microfiche or ultrafiche or possibly aperature cards. It could be stored in a computer on reels or discs, depending upon the machine, or use some similar system. The scholar could then obtain the information over the wire and even have it reproduced on a screen, have a print-out by a telecopier or have a duplicate microfiche sent via mail. Forms of this are being utilized currently, as described elsewhere in this paper (B14, 21). None of the aspects mentioned is visionary, but they are definitely in use in various combinations.

The costs are such with most of these electronic wonders that schools must find ways of sharing the costs. In some situations a smaller regional program will suffice whilst in others it will require a vaster population base to bear the burden and to give adequate information sources.

One idea proposed by several associations in the National Center for Higher Education is the implementation of a national teletype service connecting all college and university campuses in the U.S.

> This wire hookup would be owned by the Center or a subsidiary and could be coded in such a way that a sender could have his message punched out on 2 000 campus receivers simultaneously or any specialty grouping--all junior colleges, Catholic colleges, state universities, etc. (B43, 27).

Such a system could be open for business at all times. Among the possibilities envisioned would be a daily "Education Abstracts" of the news, a daily congressional report or a daily federal agency report along the lines of interest to educators. It is felt that it would engender greater communication and understanding among the institutions as well as better understandings among the specialists.

The major obstacle, it is felt, would be "receiving full cooperation from the colleges with regard to appropriate installation and manning of this potentially vital communication service." This human element of not being willing to work together is at the bottom of much misapprehension and actual inability of groups to work together (B43, 27).

Another electronic-space age development that has great implications to educators is satellite communications. It is possible to broadcast a signal directly from a satellite to a local receiver. This not only opens new horizons right here in the United States and its isolated schools, but within the field of international basic education. Through this channel, the breaking of illiteracy in areas far from normal broadcasting channels, is definitely a possibility. However, right here in this country, much money is expended in television broadcasting towers and microwave relays, as well as in cable transmission. In marginal areas it is difficult to justify the large expense for a relatively small number of pupils, yet it is this small group that no doubt needs it most. Satellite relay may be the answer (W41, 553-554).

Another development that is exciting to the media-centered professional, is the advent of video-cassette recording and playback units. In the last few years much talk has been passing about regarding electronic video-recording, video discs, systems using holography and laser beams. Various forms have been proposed and much experimental work has occurred. Whatever the system, not much has been settled as to standardization or compatibility as of this writing. The Motorola-CBS system of play-back units has come onto the market in limited production and some software is available but it has bowed out. The literature as a whole reflects uncertainty (W41, 552-553).

Of course the magnetic tape videotape recorders using the reel-to-reel principle have been on the market for several years and have basically proven themselves. Prices have been coming down and the reliability of the units has increased. Cassette videorecording is now on the market with Sony being a major producer, though other corporations are manufacturing units that are compatible. The incompatibility problem, which has plagued the entire videotape industry, has now been partially untangled with standards in the 1/2" line. Sony is hoping to solve this from the beginning by licensing other companies from the start with their cassette videorecorder.

The Sony unit utilizes 3/4-inch tape in a cartridge about the size of a normal book. The record-playback unit costs about $1 400 and can be played back and recorded through any color or black and white television receiver. A one-hour cassette costs about $35 and commercially produced duplicates can be made for about $12 each, or if one wishes, they may be made on the customer's equipment. Chromium-oxide is used for the tape rather than iron oxide, which should give better service and better fidelity (S39).

The implications to education are very encouraging. At present a color, 16 mm film costs from $600 to $800 per hour of film, as any catalog will verify. Videorecordings have been lower, but far from cheap. With the videocassette or some other form of videorecording and/or playback units, the costs no doubt will become lower by a large margin (G10). Whereas the film library has been the province of none but the larger regions and state universities, it can now be seen that smaller regions and administrative units may be able to afford video libraries. Film prints are made in limited runs at large costs; however, videocassette recordings and duplicates can be produced at much lower figures thus opening up the possibility of production runs similar to books, thus bringing down the per-unit cost to a reasonable figure, well within the budget of typical regional educational service centers.

5. Telecommunications planning

In some areas cooperation is a matter of choice. In others it is a matter of wisdom, but in the telecommunications field it is almost a necessity. However, aside from the commercial corporations and their networks and affiliates--which really are a form of cooperative, little has been done in governmental telecommunications as a network of cooperative agencies.

In the last several years the following states have realized the need for cooperation and have established telecommunications managers and coordinators: California, Colorado, Idaho, Illinois, Iowa, Michigan, Mississippi, Nebraska, New Mexico, New York, North Carolina, Utah and Wisconsin. In 1967 the Federation of Rocky Mountain States adopted policies for improvements along this line. In 1968 the Midwest Governors Conference adopted policies for closer cooperation. Also in 1968 there was held the Midwest Conference on Intergovernmental Telecommunications, again emphasizing cooperative planning (F20, 1070).

The State of Illinois has noted, as many other states have and as evidenced by the number of managers and coordinators hired, the multiplicity of television, radio and other electronic communications networks with little compatibility or cooperative planning in growth and implementation. The governor appointed a committee to study this. The following objectives were formulated:

* Integrate existing facilities into an over-all system.
* Extend present educational television broadcasting physically and quantitatively.
* Improve and initiate program materials.
* Utilize recent advances in technology.
* Provide a total telecommunications service capable of interconnecting VTR storage centers, computerized catalog library systems, data transmittal.
* Interconnect the Illinois system with developing regional and national systems (F20, 1068-1069).

This integration process involves all levels of education, libraries, computers as well as other state agencies such as police, welfare and forestry (F20, 1068-1070).

A good example for the need of coordination of effort is found in the Detroit, Michigan area. The transmission situation is a problem as there are so many television and FM stations. As a matter of further amplification of the problem, there are 1 000 public and 250 private and parochial schools, plus many collegiate institutions. Detroit is the nation's automobile capital and in addition hundreds of other industries are located there, most of which have their own educational programs.

In this large metropolitan area, regional planning and cooperation are not so much an economic convenience as a sheer necessity of survival in the congestion. All channels of T.V. and FM are tied up. Thus there is need of cooperation in order to make full utilization of all phases of transmission. Much inefficiency exists, particularly in low watt (10 watt or less) FM channels which are using up the precious open areas on the band, and sad to say, being utilized all too often in a questionable manner (M34, 36-37).

Educational Resources Access Programs (ERAP) is California's attempt to coordinate the telecommunications development within its confines. It has been recommended that the state set up an agency to coordinate all educational resources within the state, "the allocation of funds, the elimination of duplication, and the coordination of audiovisual, library, television, microfilm and computer developments" (M3, 91).

The Stone Report brought out that there was uncoordinated growth, duplication, etc.--similar to the problem just mentioned in Detroit. There is an overlap in different agencies of the state, such as the health department, computer facilities and schools of higher education.

> When all the action is reviewed it is not difficult to see that tremendous waste may result if the development of telecommunications systems is not coordinated. At a time when the state government is making every effort to modernize and improve the whole system of government, and to economize as well, failing to coordinate seems inexcusable (M3, 91).

Education will depend more and more upon technology from all evidence that is apparent, thus full use must be made of this technology in all its phases for both instruction and administration. Telecommunications is at the heart of this growth, therefore it is essential that coordination be evident. As it is, there is inequality of application, not only in California but in most areas of the nation. In addition there is,duplication of effort and in some instances a lack of initial effort in vital areas. The Stone Report, though geared to California's needs, no doubt is just as apt in most sectors of the country, it is basically correct when it says it is the state's responsibility to make equal education available to "all citizens at maximum efficiency and low cost" (M3). This requires effort, coordination and cooperation of all involved. This is regional action on a grand scale with direct implications to the R.E.S.C. concept.

6. Summary and comment

Few would doubt that the field of telecommunications is dynamic and full of potential in applications for education. Already it has made a tremendous impact upon education. The possibilities that are apparent even with present technology are astounding and exciting to the imagination. As to what the future holds is anyone's guess, but if progress is along the lines of what has been done in the last few decades, then the plight of the small and rural schools, no matter where they may be, is bound to improve. This improvement no doubt can come with the schools remaining as independent units; however, it is bound to be limited unless they take action to coordinate their efforts.

The field of telecommunications is one in which separate action by local schools is virtually bound to come to naught unless they work together as a group. No doubt individual schools and districts would hardly "get off the ground," as it were, without working within a regional organization or some sort of cooperative agreement. All this new technology is fine and grand, but the costs are commensurate.

Many states have realized that it is mandatory to coordinate the telecommunications field. This is being done to avoid duplication of effort, to effect economies of original financing as well as maintaining the service, to bring about more efficiency as well as to avoid certain chaos unless something is done.

One of the fields of telecommunications that surprises many is that of the telephone. True, most people are aware of its value to business and of course the administration of the school but few are aware of its great instructional potential. It is possible for the pupils to listen to speakers thousands of miles away and to respond to his speaking by asking questions. The tele-typewriter makes it possible to communicate messages directly. The Tele-writer makes it possible for the instructor to draw and sketch diagrams and have them reproduced on the other end of the line and in so doing teach art or mathematics. Via Tele-class a teacher can communicate with home-bound pupils and speak to them individually or as a group. DIAL Access type programs can be available to pupils and professionals who are at great distances from the data banks. Wide-area Telephone service is available for administrators as well as for information retrieval systems.

Radio still has its value, though television has stolen some of the glory. FM is used as a general educational resource with high quality music, interviews, documentaries and general instruction. There can be a high quality major carrier signal and accompanying it there may be four voice quality channels, utilizing a system called Subsidiary Communications Authorization. School and colleges frequently have their stations for educational purposes, in and of themselves, plus utilization of local talent and application to community service. Shortwave radio is used for foreign language education.

Phone line transmission of various types of television signals is being used. Computers are tied-in via these cables thus extending the value of these instruments to many subscribers. FM signals are being "piggy-backed" on TV signals, making it possible for the pupil to respond to TV lectures, or similar educational offerings. Wide-band television makes it possible to transmit high quality images, while narrow-band television is used to transmit documents or items to be placed on the screen for a few minutes.

In general all types of electronically based data are available to others via modern technology such as the telephone cable, the microwave relay, open circuit television or satellite.

Video tape recording is making it possible to record and replay video source programs. Various forms of the technique are either in production and use or are in the experimental stages. Some of these approaches promise to bring the video sources closer to the audio sources in availability, both as to number and cost. The videocassette is early in its career as of this writing. The cassette costs approximately $35 per hour and commercial reproductions of customer programs run about $12 or so thus making the gap smaller between what is desired and what is available to those media centers that are on contained budgets.

Though many of the wonders of telecommunications are available to schools as they are, working independently, yet the possibilities are generally vastly extended when they cooperate with other schools in regionally sponsored programs and centers. Telecommunications and cooperation are a virtual must, if the most is to be expected.

CHAPTER 19

INSTRUCTIONAL AND EDUCATIONAL TELEVISION

1. Introductory comments

The educational uses of television are considerable. This chapter can but convey some basic concepts for the field of educational and instructional television and accompanying modifications and variations are vast. For instance the Carnegie Commission Report on Public Television, which basically is educational television, covers over 250 pages alone (C17). There are several professional journals on various aspects of the field for no single journal can cover it all adequately. It cannot be said that ETV (Educational Television) and ITV (Instructional Television) are untried and ephemeral. Though some may argue the total values, specific values or certain aspects, yet few will doubt the total positive impact on education.

Though certain forms of television can be operated and profitably used in a single school or small school system, yet, for the most part ETV and ITV are usually operated as cooperative enterprises in one form or another such as a region, state or multi-state region. The overall values of TV are fairly well accepted but these advantages and outcomes do not come for nothing.

2. Educational and instructional television: An overview of programs

First, to clarify terminology, educational television (ETV) is a general term for all television that is educational in nature as opposed to commercial or entertainment television. Instructional television (ITV) is that television geared to the school instructional program or some other specific instructional course work.

The television medium is very versatile in its application to education. Few aware educators would suggest that ETV and ITV are panaceas for all educational woes, but on the other hand most who are progressive give evidence through word and/or action of their belief in the medium.

> The outstanding attribute of television education is its power to multiply as well as to transmit a continuous program of voice and pictures for instantaneous use in many places . . . or, with videotape, storing and using such programs at the time and place desired. Thus, television is an immediate--and as durable--as educators want it to be (B14, 15).

The uses of television as a tool of education are quite diversified with varied levels or degrees of value. For instance one author lists the following as techniques that have been "employed successfully":

1. to compensate for teacher shortages
2. to provide education for remote areas
3. to change and expand curricula
4. to raise standards of instruction
5. to provide effective clinical and inservice (sic) teacher training
6. to instruct those who cannot attend school
7. to make possible the sharing throughout a school system of the finest teaching in the sciences and arts (C61, 64).

The defence of each of these aspects cannot be undertaken in this paper, though the overall general evidence as presented in the literature is positive.

The potential of educational television audiences has grown from 105 million people in the United States in 1963 to 165 million in 1970. There are 177 ETV stations in the country with only three states devoid of such facilities: Alaska, Montana and Wyoming. The federal government has invested $36 000 000 in educational radio and television since the 1962 Educational Television Facilities Act and the 1967 Public Broadcasting Act. These statistics all give evidence of increased potential and increased actual investment to meet that potential (C39, 212).

Several exhibits will be presented to indicate the diversity of applications being utilized about the country which would most likely have regional applications. In the Los Angeles area there is a joint enrichment program between two high schools as well as California State College at Los Angeles. The Joint Enrichment Team (JET) uses videotapes as well as face-to-face meetings of pupils from Alain Leroy Locke High School, which is primarily negro, and the John H. Francis Polytechnic High School in the San Fernando Valley, which is 60 per cent white, one per cent plack and the remainder Mexican and Oriental.

This program is funded by the Rockefeller Foundation and has as its object the creation of better relationships as well as finding of ways of educating the urban black youth. Through this cooperative effort, many national groups are being involved in the total educative process (D3, 64, 67).

A different type of enrichment program has been used on the "Eastern Shore" of Maryland. The educational centers have been instrumental in offering enrichment and cultural events that in many cases would not have been available. The regional center serving Wicomico, Somerset and Dorchester Counties has offered programs in music, creative writing, non-Euclidean geometry, meteorology, organic chemistry, art and current problems. They have had educational television programs on drug education which have reached about 30 000 pupils. Concerts from Baltimore have benefited 6 000 of the 25 000 pupils within the political boundaries of the regional district. There is little doubt but that television has had an impact upon this predominately isolated, rural area. Because of its geography it has been virtually isolated for years, so much so that a dialect has developed in the area. With the advent of television and the construction of several bridges, this is being changed (E14, 36).

ASERT was a project in the field of instructional television in Nebraska. The acronymn means Availability of Supplemental Educational Resources in Television. The project worked with a state-wide system, its aims and values being definitely felt in the various areas within the state. It was a cooperative program, in fact so much so, that one of its weaknesses was the inter-relationships involved and the clarifying of roles and budgets--a point to consider in the light of this study.

Nebraska continues to be a forerunner in this field of instructional and educational television. The entire state is covered with a television network, centering primarily in Lincoln with Omaha generally carrying for its own television needs (K5, 11, 13).

Station KET in Lexington, Kentucky has been on the air since September of 1968. It serves 140 school districts in the region. An interesting feature of their program was the initial acclimating of the teachers of the area to the new service. Prior to the actual programming, workshops were held to assist the teachers in the new medium and what could be expected. Guides, which are periodically up-dated, were prepared to coorelate with textbooks being used in the courses (D18, 182).

Among other types of educational programming, the East Tennessee Supervisor's Study Council has planned, and the educational television stations in Johnson City, Knoxville and Chattanooga have produced, a series of in-service programs on flexible scheduling, learning centers, good teaching techniques, etc. (A6).

Channel 45, WTCI in Chattanooga, offers a comprehensive schedule of television courses ranging from kindergarten through high school as well as in-service programs for teachers, as mentioned. They offer teacher guides for the elementary and secondary courses, which is typical of many similar programs about the land. In addition, the educational television station will cooperate in conducting workshops for the teachers in enabling them to utilize the programs to their fullest (W43).

The programs offered by the television stations vary, without doubt, but in general the format is similar. All but three states, as has been mentioned, have educational television and doubtless the reason is not a lack of belief, but rather one of geography for Alaska, Montana and Wyoming are all large states with meager populations.

Hopefully satellite television may give impetus to work in these areas (C39, 212). The coverage by the stations is varied, usually ranging from pre-school through professional as well as general education for the public and supplementary work for schools.

Educational television is one of the more promising advances that make available course work to people that cannot normally obtain the course work because of location, hours or finances. One program that has been usually rated as successful, is the University of the Air sponsored by the state and city universities of the State of New York. They use an open channel approach in airing these programs, thus making the material available to anyone who cares to tune into the program.

Students who take the courses for credit, pay a fee to a cooperating university or college. They view the material on the TV, attend on-campus reviews, may call the teachers with questions, mail in their assignments and then take examinations on campus. The courses offer regular credit, acceptable to many institutions.

One of the advantages of televised instruction is that "the best of teaching talent at an institution can be made available to the largest possible number of students by means of taped lectures and discussion" (T9, 28).

From the context it is evident that they are speaking of videotaped materials. Videotaped course work can be played in any school owning a videotape playback unit, though any production involved must either be purchased, leased or cooperatively produced. In actuality little is available in the instructional television field as far as commercially produced videotapes are concerned. Most have been done by schools working in some sort of cooperative arrangement (T30, 27-28).

Pre-recorded videotapes and kinescopes are available from several non-profit sources, such as the Great Plains National Instructional Television Library (G42), MPATI, Inc. (M57), and the National Instructional Television Center (N12). It can probably be safely stated that even from these sources, videotaped courses are far from being inexpensive and few schools could use them without cooperating in their rental for the lesson presentation. Of course, in most cases, the courses are aired over a regionally operated television facility, thus cooperation is needed from almost any approach.

The Center for Instructional Technology (CIT) at Wayne State University is a centralized media center and learning center for this large Detroit University. Among its services is the instructional television programming for the school of nursing. These lessons are carried via cable to 14 affiliated hospitals. It takes little imagination to apply this concept in many fields (C47).

A similar program is that offered by the Nebraska Television Council for Nursing Education. Twelve schools of nursing in Nebraska and western Iowa, as well as one school in South Dakota benefit from the consortium.

This very council is a consortium; however, the source of some of the video-tapes is from the Minneapolis-St. Paul area, thus giving an added dimension to cooperative efforts. Most of the other videotapes available, such as those from NIT, Great Plains and MPATI, are via cooperative arrangements, leases, etc. (M16, 8).

Of all the types of media, surely the field of television is such that to obtain optimum use of its educational bounties requires cooperation.

3. Instructional television fixed service (ITFS)

ITFS is a low-power television transmission system using the 2 500 to 2 690 megahertz frequency range. It is possible to transmit four channels simultaneously with each channel being driven by a low-power (about 10 watt) transmitter (M34, 45).

The instructional television fixed service has several advantages for educators. In original cost it is lower than the regular channels. A single ITFS transmitter might cost about $27 000 with additional channels running about $10 000 each, of which there can be a total of four. Receiving units would run between $1 250 and $3 000, depending upon the distance from the transmitter. The maximum distance is usually about 15 miles from the transmitter.

An ITFS unit can be run by teachers and pupils inasmuch as the operator only needs a third class license from the FCC (Federal Communications Commission), which requires no great technical skills. However, maintenance would have to be done by someone with a class two or higher licence. This situation could be handled by contract, as is done by some.

Various ITFS units can be interconnected by microwave links so as to have a larger regional network. A STL (studio-to-transmitter) link can be provided also, so as to give further versatility. While the ETV stations would normally require a large region, a state-wide or even multi-state region for effective utilization, the ITFS can be a more scaled-down operation. Of course the production costs might be similar, but the transmitting and accompanying tasks would be less.

In a system of five schools and 100 classrooms, one might figure a cost, over ten years, of from $4 000 to $8 500 annually, depending upon whether there is one channel or up to the four allowed. The maintenance of about 5 per cent per year has been allowed in these figures.

As can be readily noted, ITFS is a lower-level operation than the typical television operation. It is very possible that in many situations its impact might be as effective as the more costly regular television (M34, 83).

For comparison it might be noted that the ITFS system will cover about 300 square miles. A UHF channel can cover approximately 7 000 square miles, depending upon the terrain, transmitter power output, antenna height and location. An airborne TV, such as was used by MPATI, can cover up to 100 000 square miles whilst a satellite system could cover a million square miles (G22, 42).

The ITFS can be, and is, used at varying levels of instruction. In Peoria, Illinois, Bradley University is the focal point for an ITFS system serving communities within a fifteen-miles radius. This is a metropolitan area of something over 100 000 population (U3, 511). This type of operation would seem to be quite ideal for the smaller city or regional cooperative (M34, 45).

One approach to the installation of instructional television is by the use of professional firms. One such program is that operated by Genesys Systems, Inc. They have been involved with Stanford University, University of Southern California and others. In the two schools mentioned, the program has been geared to the engineering curriculum and has been tied in with local industries. With this approach utilizing ITV, it is possible for a person to earn a large portion of his master's or engineer's degree via television.

The television program is basically an outgrowth of a cooperative action of a professional firm in the instructional television field, the university and cooperating industries. The same concept might be just as readily utilized in in-service education and continuing education in other disciplines such as law, medicine, police science, fire-fighting and similar fields. The individual is able to continue with his profession or job and yet continue in his educational pursuits, thereby bettering himself and in so doing bettering his abilities on the job (G26, 2).

Such a program as mentioned would no doubt be of benefit to resident students as well as those on the job. The younger students would learn from their counterparts in the field and the personnel on the job would gain the more theoretical and professional aspects from the university.

Though the engineering examples just given have been utilized with ITFS, they could just as well be via regular ITV, if the circumstances so dictated; however, the ITFS seems to be more logical in the programs associated with local industries or, as suggested, with other local schools and institutions (G25).

4. Community Antenna Television--or cable television (CATV)

CATV originated with the need for smaller communities to receive major network stations. For instance Monterey County in California is separated from San Jose by a mountain range. In order for the smaller communities in Monterey County to receive the large city channels of San Jose and the Bay Area, a community antenna on the top of the mountains relays the signal via calbe to the communities. In cable television the patron picks up the signals via a cable by paying a rate of five or six dollars a month.

These cables originally could carry about 12 channels, then they grew to 20 or 25 channels and now there is talk of a hundred or so. Though these cable stations are mainly commercial, many have either offered voluntarily, or have been required by local ordinance to have one or more educational channels available. Legislation is in process now on the federal level to require a certain number, possibly up to half of the channels, to be of an educational nature (A50, 2-3). CATV is now under FCC control and thus the current discussion as to who is to have what (A50; C1).

The Association for Educational Communication and Technology (AECT) has gone on record as favoring that all CATV stations have a minimum of 20 per cent of channels for educational purposes and other non-commercial public services and those stations over 20 channels reserve a minimum of 50 per cent of the channels for such service. The Corporation for Public Broadcasting has taken a similar stand (A50; 2-3).

Recommendations have further been given that a percentage of the fees collected by the CATV operators should go back to public service broadcasting, which includes educational television. This program has been called the Public Dividend Plan, and has been supported by many national groups (A50, 4-5).

The values to having as high as 50 or so different non-commercial programs available via a cable are almost self-evident. Among these values that are beyond the obvious, are:

You could reach homebound or hospitalized students with selected programs.
You could have one set of programs at one school or cluster of schools and other sets for other schools.
You could service computer terminals at school or at home.
You could manage almost instantaneous opinion polls (again with the general public or with some pin-pointed group) (C1, 2).

For the more formal instructional program there would be a large selection of classes available. Many points of view could be presented on CATV, and in many situations this is just what occurs. Classes can be repeated at various times so as to relieve pressures on scheduling. Of course there can be two-way communication among various schools and groups working on similar projects. Special-interest groups can better air their viewpoint. Professional education and similar in-service educational programs are possible (C1, 1-2).

The possibilities within the field of CATV are very great and though an individual school would be able to do little were it not for a cooperative network, yet via this medium of TV they would be able to retain much in local autonomy (B24, 46-48; W41, 551-552).

5. Closed-Circuit Television (CCTV)

This approach to ETV and ITV might be via one of two avenues. In one case it could be quite individualized and be done exclusive of any other schools--and be without the realm of this paper. Cables could be run throughout a school and originate at the media studio with no outside influence at all. This would be closed circuit in its strictest sense. On the other hand, the school might be interconnected with other schools in a district, region or even within an entire state and in so doing would be far from exclusive. Cooperation would definitely be involved to varying degrees depending upon the organizational structure. In practice both of these approaches may be, and probably are, used in most schools that have such cable connections and facilities.

Whereas open-circuit television is broadcast over the air so that anyone may receive the signal, the closed-circuit television is of such a nature that only those connected by the cable may receive the program, thus making an exclusive reception of media.

The closed circuit approach is well suited to programming in which the sender wishes a known audience. Much of the material that is broadcast is of such a nature that frequently it would be better for there to be control over the receivers. Such is possible with

CCTV and not possible with open circuit unless a scrambled signal is sent. The latter is the approach to be used for the much debated pay television, if it ever comes of age. No doubt it would have possibilities in the educational field where the lower cost of open-circuit TV is desired. As it is now, CCTV is the avenue to use for a controlled audience, as well as a generally good signal.

Closed-circuit television is being used in many portions of the country. Hagerstown, Maryland is a pioneer in the field of CCTV. They operate a six-channel system which serves 40 schools in Washington County in northern Maryland. They have five production studios with 30 teachers specializing in this technique of teaching. Students from the local junior college gain on-the-job experience as they assist in the operation of the station.

The television school, if one may call it that, has a professional staff of educators approximating the number to be found in a typical urban elementary school, though in practice they supplement the instruction in 40 schools (M34, 53; F1, 75-89).

A similar, relatively small CCTV system is stationed at New Trier High School in Winnetka, Illinois. It serves 31 schools in the New Trier Township. They have four channels operating from eight to ten hours daily. This is a better-class suburban area and has been in educational news more than once for its innovative educational practices.

A unique feature of this system is the possibility of a teacher to request a particular program to be "aired." A 24-hour notice is required in order for this service to be rendered. During the 1969-1970 school year 2 100 special requests were handled, which would indicate considerable usage when it is noted that this service is within but 31 schools (D18, 182).

South Carolina is among the less prosperous states within the United States and thus has been forced to find ways of utilizing what it can in bettering the education of its pupils. Some may say that Winnetka has CCTV because of its wealth, but this cannot be said about South Carolina, for few states are poorer, thus what she does must produce the most for the investment. Because of the need and because of the outcomes to be derived, the state has constructed the largest combined microwave and closed-circuit network of any state system.

The state leases cable from the Southern Bell Telephone Company for the transmission of television signals. It is a multi-channel system, thus it is possible for three programs to be broadcast simultaneously over the system.

Not only has the CCTV system been used for elementary and secondary pupils, but the medical personnel of the state have used it in postgraduate symposia. The Bar Association has carried on a similar program for the lawyers of the state. The colleges and universities are also hooked up to the CCTV system (M34, 43; B14, 15-16).

The Texas Educational Microwave Project (TEMP) is a privately owned closed-circuit television network connecting 15 colleges and universities between Austin and San Antonio, Texas.

Via this project, a mutual usage of equipment and facilities, such as the electron microscope at the University of Texas, could be realized. Teachers could better utilize their time by allowing television to take over much of the repetitious work. In larger schools experienced teachers could be placed to better advantage via televised classes and laboratories. In addition, outstanding lecturers and authorities would be available to all the schools. Connections could be made with the courthouse so that law students could study legal procedures. The applications are numerous and of course the sharing within this consortium has made it possible to extend the influence of the worthwhile aspects and applications to the other 14 schools (M34, 43-44).

Though the following illustration is for a strictly closed-circuit system, entirely within one school, many aspects could be of much value in applications to a regional system. Michigan State University, with its 38 000 students at East Lansing, has one of the largest closed-circuit television networks in existence. The circuit links 137 classrooms in 24 academic buildings and dormitories, utilizing eleven channels.

According to this report, the advantages of TV instruction are:

1. use of top talent for lectures
2. availability of material for review of the student
3. ability to view a lecture from the dormitory rather than cross a very large campus (they have transit busses for campus travel)
4. the ability to "spread" the talents of a professor to any number of students.

The two major disadvantages listed are the lack of personal contact with the professor as well as the inability to ask questions. The last two are, all too often, the same even in resident lectures where the classes have hundreds of students per class.

At Michigan State University some of the lecture halls have connections with the dormitories so that a telephone question can be asked of the TV teacher. This is similar to the University of Southern California plan where they will use two-way radio. Those who wish to, may listen live in the lecture room at M.S.U. This appears to lessen the objection of "lack of personal contact" for those who have strong feelings (B5).

It will be noted that the CCTV concept can run from a cable connection from the studio of a school to classroom 101 down the hall on through to a statewide or even multi-state system, as will be noted later. Some systems use the closed-circuit approach, others the ITFS, others open-circuit and others CATV. Each has its advantages and disadvantages which must be weighed according to the needs of the region.

6. Television libraries and videorecording

One of the many assets of television is its capability of being stored for future release. This storage may be via 16 mm film, in which case it is referred to as a kinescope if it is from television or a regular 16 mm film which originated from photographic film initially. The other common manner of storage is via magnetic videotape. In this case the image is not optical at all, other than the reception of the original image via the video camera in which there is a lens. Other than this, it is transported electronically. The image is transmitted to the magnetic tape almost instantaneously and is ready for immediate playback. Of course 16 mm film must be processed in a laboratory and costs considerably more.

As might be expected, various schools and stations early found out the great value to be accrued from exchanging videotapes. The major complication has been the incompatibility of the playback equipment. Frequently a tape could not be played back even on another machine of the same brand, let alone a different brand. As of this writing, many of the major manufacturers have agreed on a Japanese format for half-inch tapes, thus what has been recorded on a 1/2" Concord can be played back on a 1/2" Sony or any one of several other major brands. Without doubt this will make it much easier to exchange tapes and to operate videotape libraries.

Prior to the standardization of half-inch format there were one or two avenues for a tape library or inter-change program. First, all members could have the same machine; so, for example, all members of the Nebraska Television Council for Higher Education (NETCHE) agreed on the Ampex 1" format. Obviously they were stuck with this machine, good or bad, for the tapes would play back on no other machine units. If any other machines were to tilize these master tapes, dubbing procedures required an intermediary unit of the brand that was compatible with that of the other patron. It is thus that the larger tape libraries have had to have a bank of various brands on hand or dub to order--a rather costly and cumbersome process (P39; N21).

The second alternative is to have compatible video playback units, which is now occurring in the half-inch market as well as 3/4" videocassette. The library and inter-change system would be eternally hampered were the incompatibility problem of non-standardization to continue.

There are several relatively large videotape libraries in the United States that are geared to the instructional field. Though these establishments are non-profit, the rental and leases on instructional programs are far from inexpensive. For instance the National Instructional Television Center at Indiana University (NIT) has a sliding scale with rates running from $43 per 30 minutes for the smallest school population group to as high as $95,50 (95.50) for the largest units. This fee allows unlimited use for one week (N12, 21).

The Great Plains National Instructional Television Library (GPNITL) in Lincoln, Nebraska has a flat rate plan with rates lowered in repeated usage, though the overall cost to the user is similar in cost to NIT (G42, 12). Though the videotape libraries such as NIT, GPNITL and MPATI (Midwest Program on Airborne Television Instruction) are ventures of cooperation in a certain sense, yet the costs of renting or leasing videotapes, of necessity, cannot be borne by a small group under normal circumstances. Therefore the playback of these lessons is typically via an educational television station, which usually is of a regional nature, such as KQED in San Francisco, KUON in Lincoln or KETS in Little Rock (C17, 105-112).

Without doubt production costs for programming are high, as will be brought out later in this chapter. In addition, not all participants are volunteers. Honorariums must be paid, in many cases, for even short appearances on a program. Staging costs considerably as does the extensive electronic paraphernalia to record the production. It is not uncommon to find a million dollars invested in electronic gear in a television studio. These costs must be recouped, thus a partial answer to the high rental and lease costs (P39).

It is quite apparent that the individual school or typical school district cannot operate a full-fledged instructional television instruction program. Virtually all ETV/ITV set-ups are either operated by a state university, a large city or county school system or a regional organization (C17, 105-112; M57; N12; G42).

7. ETV/ITV costs

There is little question but that television teaching is relatively expensive, or from some viewpoints very expensive. On the other hand, when ETV/ITV is being utilized by a large group of schools, the costs can be brought down to reasonable figures, especially when the overall values to be received are considered.

A large proportion of the costs of television is in the production of the programs. A presentation on TV in the manner in which a teacher would normally teach the class would cost about $50 per hour. If the presentation were given by a trained TV teacher with accompanying props, graphics, rehearsals, etc., it might run to as high as $6 000 per hour. A commercial production in some sophisticated areas can run up to a half million dollars or so. Through mass production and distribution of videotapes, the costs of a sophisticated production might be brought down to $50 per hour (C61, 63-64).

Another study gave the productions costs per instructional program at $200 to $2 000 each. It is further suggested that even the duplication costs of a previously prepared program can run at approximately two dollars per minute. With the tape itself costing approximately a dollar per minute and the quadraplex videorecorders costing tens of thousands of dollars each, it is no wonder the cost is so high (G22, 16).

Distribution costs for television can be relatively inexpensive if there is a sufficiently broad pupil population base. Some studies have shown a figure of but a dollar or two per pupil annually in the metropolitan areas. The radio system is probably the lowest in cost of the telecommunicative systems, whereas the VTR (video taperecorder) in some instances was listed as among the highest, excluding CAI. Among the television transmission systems, the ITFS is generally the lowest in cost, though it is restircted in power and thus confined to areas of considerable population density, unless the FCC allows some changes in a power transmission ruling allowing increased power (S44, 20-21).

Some of the newer equipment in the 1/2" and 1/4" size is becoming relatively low in cost and high in reliability. Tape costs run as low as eight dollars per 20 minutes on the Akai 1/4" VTRs and the actual VTRs are found in models selling for less than a thousand dollars. The new Sony videocassette sells for approximately $35 per hour, empty, and the machine itself costs about $1 400 (S39; A8; M2).

Equipment costs are being reduced more and more. Where color-television cameras were close to $50 000 in the most inexpensive line but a few years ago, prices have dropped to as low as $2 500. Many of the 1/2" VTRs costing about $1 000 are doing as well as 1" units costing several thousand but a few years ago. Compatibility in 1/2" units is increasing the versatility of the VTR in exchange and cooperative programs. As a whole the economic structure in the television equipment picture is encouraging as far as the schools are concerned.

Total costs for television in schools run about $30 to $40 per year per pupil in local areas of about 15 000 pupils and usually drop to $10 in larger cities or even down to $6 in regions. By contrast, audio systems, language laboratories, dial access and radio systems will run $8 to $10 in "local areas" down to $3 to $6 in the cities. Radio will run about $2 to $3 annually. A VTR system, in this study, would run as high as $65 annually per pupil. No doubt the latter figure is not including some of the latest of VTR equipment, but none-the-less it is an awesome figure (S43, 22-23).

An important concept to be kept in mind is that in television as well as in other audiovisual fields, there are fixed costs to be considered. It is a generally universally understood fact that per unit costs decrease as the production increases. Of course there is a point of marginal productivity when a leveling process sets in. The economists desire to find that critical point of decreased return. For instance, a study of nine southern states showed that schools enrolling fewer than 200 pupils had a rapid increase in per pupil expenditures. As the enrollment increased, the proportional costs decreased till after an enrollment of 600 the expenditures per pupil leveled off (M55). A similar situation exists in many facets of education, including audiovisuals and more specifically in the ETV/ITV field. This point of marginal return will vary from field to field and possibly from area to area for there are so many factors to be considered.

One example of the per-pupil drop in costs in television production was noted in one study where per-pupil costs dropped from $18 to as low as 25¢. Local radio production costs ran about $4 each in a local situation (ca. 15 000 pupils) to a dollar or less in larger areas. Production for dial access ranged from $2 down to 50¢ in metropolitan areas (S43, 17).

> In summary, it can be said that production for visual materials can be accomplished at the reasonable cost of several dollars per student if the number of students in the system is in the hundreds of thousands. Moreover, the price structure for the materials must reflect the large volume. At present, television production cost is considerably less than the cost of producing films (S43, 18).

Distribution costs can be cut in several ways also, in a similar fashion as the production. It is apparent that a given transmitter can just as well serve all the pupils in a given area as to serve but a fraction of them with no increase in cost, assuming it has the same wattage of power. Even on power, there can be an increase in transmission power and yet have certain other elements fixed, such as the studio crews, possibly antenna height etc. The basic increase would be in power and certain equipment, all of which would be dependent upon the FCC allocated power. Assuming the transmitter could be increased in power, a small increase in power with a proportional increase in equipment cost might be reflected in a much larger increase in audience. Thus a relatively small increase in equipment investment would give a much larger increase in service.

From the literature it is apparent that, generally speaking, the wider the audience, the more pupils and schools being served from a central facility and possible microwave repeaters, the lower the per-pupil cost. The mass reproduction of videotapes, kinescopes or videocassettes or some other form of video material, such as holography or electronic videorecordings, may bring the overall prices down. In the past, mass production has brought prices down on most items. Costs are also being lowered by fuller utilization of equipment and personnel. At KUON-TV, for instance, the videorecorders are in operation round the clock and no doubt this picture would be repeated in many ETV facilities (G22, 23-24; P39).

There is another element in cost that should be mentioned. One can readily see that television and other audiovisual media are far from cheap, thus why use it?

> The largest item in a school's operating budget is teachers' salaries. The implementation of media systems would not necessarily reduce the number of teachers. It would alter their role, however, so that they could devote a larger portion of their time to individual instruction and the guidance of learning experiences. This would be one step toward achievement of optimum "cost effectiveness." The operation of media, the monitoring of learning experiences, and other similar responsibilities could be assigned to paraprofessionals. This work, currently performed by the teacher, could be effectively accomplished by persons without professional qualifications required of the teaching staff. Hence, a "cost saving" may result when a school system is organized along these lines (S43, 31).

The total utilization of facilities, equipment and personnel to their fullest is the aim of any administrator. In some cases full utilization can be on a very local level whereas in other situations certain aspects or the total system might be more efficient on a regional level. In the case of ETV/ITV, much of the system is found on a very high regional level, often encompassing the entire state or several states. Yet even within the local school or school district, cooperation and organization are found in utilizing personnel to their fullest. One thing is quite sure: intelligent, professional planning is required on all levels in order to obtain the fullest of efficiency and learning power from ETV/ITV.

8. Regional and statewide television systems

From the discussion it is apparent that various levels of cooperation are in effect. Certain instructional television functions can be carried on very nicely within a single school, such as performance studies and closed-circuit programming. Even on this level, however, "no man is an island." Even the simplest of VTRs cost as much as a 16 mm projector and thus in order to obtain fullest use of the equipment and facilities, someone must coordinate activities. This pattern extends throughout the administrative levels--local school, district, regional, state and multi-state. A few examples will be presented

Instructional television is being used in Delaware for enriching the curriculum. It is headquartered in Dover and serves 162 schools with their 105 000 pupils. During a year over 5 000 programs are aired over this network. It is a CCTV system with studios in Dover and cables running directly to the schools involved (B14, 15-16).

Nebraska Educational Television Network (NET) serves a host of audiences, ranging from pre-schoolers through post-graduate dentistry. 200 000 pupils on the elementary and secondary levels receive course work in most common curricular fields. The college community is served via NETCHE, which will be discussed later. Nursing students are served as well as the farmers. Legislative sessions are aired from the unicameral legislature in Lincoln.

The NET system broadcasts about 95 hours weekly over an open-circuit system utilizing microwave repeaters and outlets across the state. Omaha's KYNE-TV cares for that city's ETV needs whereas KUON-TV in the capital of Lincoln serves the rest of the state. This station is located at the University of Nebraska at Lincoln. The relays across the state cover all areas but a few fringe areas which are covered by six low-power translators (serving limited areas). There are nine stations in the system as a whole.

Both KUON-TV and KYNE-TV are located on university campuses and act as chief catalysts for the system. The organization and the sub-organizations are quite involved inasmuch as private schools are related to the program via sub-organizations utilizing the stations of the entire system.

Four voluntary, non-profit corporations are what might be considered sub-organizations. These are:

Nebraska Council for Educational Television, Inc.

Metropolitan Omaha Educational Broadcasting Association, Inc.

Nebraska Educational Television Council for Higher Education, Inc.

Nebraska Television Council for Nursing Education, Inc.

The first two organizations are geared to elementary and secondary education while the latter two are in higher education. The nursing group also serves western Iowa and southeastern South Dakota. Continuation education is offered under the aegis of the University of Nebraska.

The utter inter-relatedness of this program, which is typical of many similar programs, is seen in the Nebraska system being a part of a still larger cooperative--NET (National Eduational Television) which is comprised of 160 affiliated stations. In addition, much of the programming of the Nebraska network is from Educational Television Stations Program Service, Inc. of the National Educational Broadcasters. Eighteen of the stations are affiliated in CEN (Central Educational Network) for the exchange of programs of cultural and public affairs value (N15; P39).

Where the Nebraska network is an open-circuit system, the South Carolina and Delaware networks are cable. The relative values are not in the province of this paper. Suffice it to say that each has its distinct advantages and disadvantages with the tally sheet for each closely enough equated that some networks have adopted the open-circuit and some the closed circuit approach (M34, 43; B14, 15-16).

Inasmuch as Michigan is involved in this study, some mention should be made of TV in the state. At this writing Michigan has not made the strides in ETV/ITV as some states, such as Nebraska and South Carolina, nor has it been under the pressure to alleviate educational shortcomings. Even though Michigan is not as hard pressed as some, yet committees and plans are in progress.

It has been proposed that Michigan be divided into four regions for purposes of educational television. The first region would be the Upper Peninsula, a rather sparsely populated portion of the state in the central time zone. The second region would be the lower peninsula, northern portion, with its 39 counties which are currently part of the Central Michigan Educational Resources Council, which has been promoting the television concept already. The greater Detroit area would be the third region with its high population density. The fourth region would be the southern portion of the lower peninsula not included in the Detroit area. This area is the major agricultural belt of the state and also includes many population centers (M34, 27-28).

For the most part, cooperative programs in television have a rather large regional base. In fact, the common sizes to be found in television are often, if not usually, larger than the region that is generally involved in an educational service center. At this juncture the intermediate units in Michigan are but a county or two in size, though plans are being made for larger units; whereas the regions proposed for television are considerably larger.

Mention has been made of several sizes of cooperative television programs and yet there are regional bases that are larger than entire states. In New England, Vermont, New Hampshire, Maine and Massachusetts are working as a network. Several large eastern cities use a leased common carrier cable for programs. This network includes Boston, New York City, Buffalo, Syracuse, Rochester, Utica and Albany. These cities are in New York State and Massachusetts, indicating that it is possible to have interstate programs (M34, 51).

The Eastern Educational Network includes the entire northeastern portion of the United States from Maine to D.C. The Northeastern Regional Instructional Television Library is similar to the Great Plains library. The Midwest Program on Airborne Television Instruction (MPATI) has shifted its emphasis more to production and distribution whereas at one time it was a multi-state operation utilizing aircraft as a beaming antenna. The Western Interstate Compact on Higher Education and the Southern Regional Educational Board (SREB) are also involved in multistate ETV (B48, 209-210).

Because of the nature of ETV/ITV, it appears that the larger regional configuration is more predominant. The cost studies show that overall costs drop as the population base gets into the hundreds of thousands. Not all media services are efficient at these sizes, obviously.

9. Nebraska Educational Television Council for Higher Education (NETCHE)

One regional operation will be discussed more in detail so as to establish a sounder rationale for cooperative programs in media, of which this example in television may serve as a sample. Many of the concepts and operations of the NETCHE program can be applied to other regional educational service programs. In this situation the cooperative program is in television, though the idea is applicable to other media, and service areas.

The Nebraska Educational Television Council for Higher Education, known as NETCHE, was founded in 1965 as a cooperative approach to the utilization of television among the colleges and universities of the state of Nebraska, both private and public. Because of this organization, "special instruction which might not otherwise be offered for lack of fully qualified faculty is readily available" (N21, 1).

NETCHE is a program agency of the Nebraska Television Network and utilizes the production and distribution facilities of the state television network. It is financed to a large degree by the federal government as well as by the state and members of the consortia. The federal funding is on an annual basis, thus not adding to the stability of the organization. It is very probable that without this federal money, operations would have to be curtailed to a considerable extent.

The broadcast services of NETCHE might be grouped into four major categories:

1. Special courses which would not normally be available on campus because of their unique character and requiring specialized staff personnel and media back-up.
2. Basic course work to be used regularly in the classroom as part of the course in residence and acting as a supplement.
3. Supplementary lessons on a wide variety of subjects, usually of an enrichment nature, a unique format or interviews with specialists in varied fields.
4. Off-campus credit courses, possible combination of correspondence and television and partial residence and/or examination (N21, 3).

One of the popular offerings in category one is the course, Americans from Africa: A History. The course is leased from the

Great Plains library who in turn has obtained it from Virginia. The television teacher is a black professor from Virginia. Each local college offering this course, appoints a local professor to correlate the TV lectures, discussion and examinations. Credit may be offered at the local college at its discretion with the local college sharing in the expense of the television programming. At one college the local professor had lived in Africa and was a professional historian, thus between the television expert and the local history professor, the student obtained a good presentation (P39; N21). Other offerings include entomology and aesthetics, as well as other courses.

Category two includes basic course work, such as introductory geography and mathematics. Some of the courses are leased through Great Plains and in other cases they are produced locally by professors within the member institutions. Curriculum committees from members of the consortia decide what would be most useful to them. The academic dean of the college, as might be expected, is a key figure in the organization as a whole, inasmuch as he is in charge of instruction.

The supplementary lessons are aired from three to five times each week. These are primarily local productions made at the KUON-TV facility at the University of Nebraska at Lincoln or on location utilizing their mobile units. The variety found in this programming is amazing. It might be an interview with a Nobel prize winner or a lecture by a scientist specializing in DNA. World-famous sculptors and designers have been on the air as well as archaeologists and linguists. The programs give enrichment material for all phases of the curriculum. If the program does not arrive at the proper period for viewing, the local college may videotape it for later release or it has the option of borrowing it from the NETCHE videotape library located at the KUON-TV studios. This may be done in person or via parcel post. Inasmuch as this program was initiated prior to compatible VTRs, NETCHE agreed upon the Ampex one-inch format. In this way, all members of the consortium might interchange tapes and utilize the tape library at the station. All original tapes are on 2" quadraplex and must be dubbed onto the 1" helical-scan format.

NETCHE has carried on an extensive publication program, which no doubt has materially aided the efforts of this consortium. News letters are sent periodically to faculty members. In addition much general propaganda material has been printed on TV as a whole as well as on the NETCHE program. Special fliers are printed for each of the supplementary programs and give an abstract of the forthcoming program as well as routing information to various departments that might find the material of value. Reminder notices are sent out to the local co-ordinator on each campus. Information dissemination is a crucial phase of the operation. In addition, Nebraska Educational Television sends out a monthly TV listing of all ETV/ITV programming.

The University of Nebraska is an important cog in the network, if not the very hub, for KUON-TV is on the campus in downtown Lincoln. The NETCHE office is also adjacent to the campus and the director is also employed by the University of Nebraska. The Great Plains library is also located on the same campus, thus it is apparent the role the state university plays is essential to the entire operation.

The NETCHE organization offers counseling service regarding the television medium in its various aspects. Utilization conferences are held periodically to assist the co-ordinators on the various campuses scattered about the state. Most of the approximately 25 institutions of higher learning within the state utilize certain aspects of the program and about half of these are actual members of the consortium and utilize most services.

The organization is quite democratic in that the presidents and academic deans are on boards to establish general plans and policies. Each member of the consortium is granted a half-time salary for an ITV Co-ordinator who not only acts as an intermediary between the local institution and the NETCHE office but usually is in charge of local television operations. In some colleges and universities the academic dean acts as the co-ordinator. Such was the case during the 1968-1969 school year at Chadron State College and at Nebraska Wesleyan University. In other cases a faculty member took the role and in still others a specialist in media was in charge (N21, 1-4; P39).

At Union College in Lincoln, the NETCHE ITV Co-ordinator was a media person and a full member of the faculty during 1968-1969. As a member of the curriculum committee he was able to keep abreast of developments on campus and no doubt better to co-ordinate efforts (P39; P40).

Among the strengths of the NETCHE program are the following:

1. Well organized with an adequate office staff to offer good service: dissemination, consultation, communication, in-service education, committee work, etc.
2. Placement of ITV Co-ordinators at each of the NETCHE Consortia campuses to co-ordinate efforts of the college and NETCHE and generally intra-campus activities.
3. Good rapport, from empirical evidence, between the NETCHE staff and campus co-ordinators.
4. Having the state university as the center of operations, it being the largest institution of its type in the state and Lincoln also being the capital and second largest city.
5. Several sources of income: federal, state and local or private. It is not a dole, but each contributes towards the support of the organization, not only financially but in cooperative action.

Though the strengths appear to outweigh the weaknesses, a few negative features are evident.

1. The federal funding is annual and notification of yes or no is late in the season, thus making it difficult to lay plans from year to year.
2. Membership with the organization is voluntary and thus a college or university may join or drop from year to year. Most of the institutions are relatively small, but when Creighton University dropped--one of the medium-sized schools--it made a greater impact no doubt than a 1 000-student college. In any case, the erratic funding is a

negative aspect of many regional and cooperative programs, not only for NETCHE. This is a factor that needs to be studied carefully (P39; N21).

10. Summary and comment

Though most educational commentators realize the limitations of television in education, yet most also are much aware of its vast number of advantages, such as its versatility, ability to communicate to millions at any one time, its application to performance studies in a vast number of disciplines, its storage capability and fast retrieval aspects as well as many other applications.

Generally television in education is listed as educational television (ETV) when geared to the general audience or to specific groups outside of a formal educational atmosphere. Instructional television (ITV) refers to formal instructional programs.

An indication of the acceptance of this medium is found in the vast number of applications across the land. All but three states have ETV stations and thousands of schools have videotaping and general receiving equipment. Entire states are covered by television networks, such as the closed-circuit system in South Carolina and the open-circuit system in Nebraska.

Though independent schools have their own internal television programs, often connecting classrooms by cables, many schools are tied into some sort of a system. This may be via a school district or small region and often utilizing ITFS (instructional television fixed service). The power is low and has a coverage radius of about

15 miles. Often schools are also inter-connected with other institutions or industries.

CCTV (closed-circuit television) is used within a school or within a school system, or even within an entire state or group of states. If the program is without the school, it may arrive via CATV (cable or community antenna television) or via a typical open-circuit system using antenna connections direct to the consumer. Within the school itself, cables may inter-connect classrooms.

As of this time, ITFS with its limited range carries four channels. A CATV system originally had 12 channels but the number has increased to 20 or 25 and may rise to a hundred, thus giving much versatility to programming. Much discussion is current regarding the percentage of these channels to be used for educational purposes.

Television programs may be stored via film, kinescopes or on videotapes. Recent developments may find them stored on videocassettes, electronic videorecordings or on a hologram storage unit of some sort. Various forms of videorecordings are considerably less expensive than 16 mm film and in addition can be easily edited.

Libraries for television programming are found in many areas. Several large ones catering to the ETV/ITV market are the Great Plains library in Nebraska, the NET and NIT at Bloomington, Indiana and IMPATI also in Indiana. Specialized libraries are found in many areas also. Most of these libraries are non-profit, though admittedly rates are still relatively high. Many commentators feel that rates will fall with high-speed duplication and more extensive distribution.

Videotape recording can be easily done at local schools, though props and media can bring the costs up substantially. Tapes have been averaging about a dollar per minute even when empty, though prices are dropping here also.

Though the advantages of television instruction are generally positive, yet the costs are such that few schools attempt to operate a complete program on their own. Cooperative action is the general trend in most circles. Though some forms of media can best benefit from smaller regional and cooperative programs, ETV/ITV appears to gain the most from rather large regional or state organizations with a pupil base in the hundreds of thousands.

Cost studies have definitely shown the wisdom of a large pupil-population base for efficient operation. Though this is true with the ETV/ITV field and several other rather sophisticated media fields such as CAI and DAIRS, it is not necessarily true with most other educational services. An inspection of the on-going programs of cooperative and/or regional organizations indicates this pattern. In the field of ETV/ITV the central production and distribution facility is generally not a local operation inasmuch as it is just not practical or economically feasible. Cooperative regional action is a must, in one way or another.

In this chapter the Nebraska Educational Television Council for Higher Education (NETCHE) was given as an example of what can be and is being done through a regional approach to a problem. In this case an entire state is involved, though in other avenues a larger base is involved, such as National Educational Television and the Great Plains National Instructional Television Library. In other instances the cooperation was on a more local basis with Union College, Nebraska Wesleyan University and the University of Nebraska. Such a program is cooperative in many channels on many levels.

Union College definitely would not have been able to operate the instructional television program it does without the NETCHE consortium. True, certain aspects, such as local videotaping, performance studies and utilizing the monitor for local viewing from commercial sources would be available, but it would definitely be an abbreviated program.

With many fields of media, cooperative programs are desirable and advantages do accrue to users, though strictly independent programs are possible. In the field of television in education, the possibility is less likely to present acceptable service. Cooperative action is a virtual must.

CHAPTER 20

DENOMINATIONAL COOPERATIVE AND/OR REGIONAL PROGRMS

1. Introductory comments

Inasmuch as most denominational programs are cooperative in a sense and inasmuch as they are voluntary in structure, their presence is to be noted in the light of this paper. Though it is not possible to trace the organizational structure of the various church groups, it can be safely said that most churches are to a greater or lesser degree autonomous. Many belong to conferences, districts, dioceses, or similar larger organizations that might be roughly equated to the intermediate structure of the public schools. Some church groups are quite highly organized while others are very loose in their associations.

This chapter will discuss various programs that are either in action or in the planning stages in various non-Seventh-day Adventist groups. These programs will be those that are primarily of a service nature with particular attention to the media services to the educational arm of the church, either for the week-day school or the various types of "Sunday Schools" or indoctrination classes of the church. Again in this chapter, as in others, the material is not proposed as being exhaustive, but rather illustrative.

It should be carefully noted that the cooperative approach to educational services within church groups is not too common in this country. Communications that were made with various groups showed a great interest in the concept, but little was actually observed in action. It might be that the very local autonomy that is so characteristic of so many church groups is at the same time a barrier to cooperative or regional programs. It is true that some groups have cooperated, yes even ecumenical centers have been established, but these are the exception rather than the rule.

2. Protestant programs

The vast majority of church operated schools are under the auspices of the Roman Catholic Church. However approximately 200 000 pupils are enrolled in 1 629 Lutheran elementary and secondary schools. This enrollment constitutes about 3.5 per cent of all non-public school enrollment and 0.39 per cent of all school enrollment in the United States.

The Lutheran school system is second in size to the Roman Catholic system, though it is apparent that the difference in size is vast. The major portion of the Lutheran schools are operated by the Missouri Synod. 1 300 of the total are Missouri Synod, 237 in 1968 were of the Wisconsin Evangelical Synod and less than 100 of other synods when totaled together (L33, 14-15).

The Lutheran schools are run by the local congregation. All male members over 21 are members of the voter's assembly which governs the schools. Legally the local church also owns the school. The Concordia Publishing House in St. Louis, Missouri publishes many materials of a curricular nature for use in these schools as well as in the church program (L33, 15-16).

Berrien County, Michigan has a strong group of Lutheran Schools, with each school having very admirable edifices and professionally trained staff. The author has interviewed various of the local educators and finds little in the line of cooperative efforts. Of course local parochial schools may partake of some of the services of the local Intermediate Unit which is located across the road from the Trinity Lutheran School in Berrien Springs. The Teaching Materials Center at Andrews University is utilized to some extent by the schools also. Therefore there is some cooperative action with local agencies, but nothing of a real regional nature.

At Fort Dodge, Iowa the Iowa District West of the Missouri Synod operates an audiovisual center to serve that portion of the state.

> Your District Audiovisual Materials Library maintains approximately 350 titles of filmstrips and recordings. Since it is a joint project of all departments, Missions, Stewardship, Education, and Youth, it includes items which will serve a wide variety of purposes within the congregation. It is our intent to supplement the congregational audiovisual library; not to replace it. Therefore our policy is to acquire audiovisual aids which the congregation normally would not purchase for their own use (L32, ii).

This arrangement is similar to the general policies being followed by public school regional and district service centers. Many of the public institutions are called supplementary centers inasmuch as that is their function, to supplement and complement, not supplant.

The multi-usage approach mentioned in the Lutheran center is typical of a large share of the cooperative and/or regional centers studied in this phase. One large center for multi-media was originally planned for day school use but is being used more and more for the entire church program, thus virtually all such centers are being used for the entire church program, not just the day school program. It would appear that this would be in keeping with the entire concept of regional and cooperative programs: to obtain more for the dollar investment, whether it be materials, services, personnel or facilities.

Cooperative effort does exist in other areas also, though for the most part this is found in interparish schools. In 1967-1968 there were 47 such schools. Cooperative purchasing has been used in some places. Transportation programs, sharing of teacher personnel in a district and similar cooperative programs have been utilized, though these programs would not be to the extent of that found in public school systems for the simple reason that most such parish or interparish schools are usually some miles apart.

In 1967 the Missouri Synod operated 25 high schools, 24 of which were interparish in operation, thus qualifying as cooperative ventures, though more likely of a district nature rather than regional. In addition they operate some boarding high schools in connection with the Synod's colleges (K20, 9).

The Church of Jesus Christ of Latter-day Saints (Mormons) has a strong educational commitment, though it differs in emphasis from that of the Lutherans. The church operates Brigham Young University in Provo, Utah, which is one of the largest denominationally controlled schools in this country. They have several colleges about the country, such as in Hawaii and Idaho, as well as a business school in Salt Lake City. They do operate some church schools but these are mostly overseas. In the United States they have put emphasis upon Institutes of Religion and released time seminaries for secondary pupils. In addition they have various groups such as the Deseret Club, which in practice is similar to the institutes for college students on secular campuses.

The Stake organization of the church has some similarities to a district or region. Several congregations commonly called wards comprise a stake. In each stake where there are one or more seminaries or institutes of religion, there is a board of education. Where several stakes are involved there is a district board of education comprised of the stake presidents and a chairman appointed by those presidents from among their ranks.

These organizations provide and maintain "suitable buildings, classrooms and equipment for the teaching of the classes; cooperates with teachers appointed by the Church board of education," helps with student enrollment and counsels with the administrators (S36, 9).

Expenses involved in these operations are shared by the participating wards and/or stake(s) "with primary expense being disbursed from general Church funds," as far as salaries for personnel are concerned (S36, 9). The seminaries and institutes in this category are not church schools in the same sense as the day schools of the Lutherans or other groups in which all fields of subject matter are taught. The Latter Day Saints are operating a religious supplementary program in the case of the stake operations described. Of course Brigham Young University and several of their colleges are general schools, as well as their overseas church schools (S36).

As mentioned in the prefatory chapter of this paper, letters were written to all established denominations in the United States, to all diocese and archdiocese offices of the Roman Catholic church and to all Lutheran districts, inasmuch as the latter has the major share of church schools outside of the Catholic communion or Seventh-day Adventist denomination. Actually the results of this inquiry were very disappointing. Similar requests to the public schools rendered a much greater response, relatively speaking.

The lack of viable programs should not be considered as a lack of interest or desire for cooperation. Conversations and letters have given indications of a desire and felt need. An example of this interest is seen in the following excerpt from a letter from the national headquarters of one of the large Protestant denominations:

> We are interested in receiving any information that would be helpful to us in this general area as the Board of Education of the United Methodist Church through its Program-Curriculum Committee is now in the process of developing church education centers in various locations throughout the United States. As soon as we have materials ready on our progress to date we will send them along to you (L9).

A similar letter was received from a pastor of a large city Presbyterian church in which he expressed interest in the concept and its application in his area. Obviously the interest is not universal nor overwhelming but on the other hand few, if any, have indicated strong opposition to the concept. The usual expression is to the effect that the idea is good and worthy of exploration but it might run into complications when it comes to personalities. This same type of thinking is characteristic of problems that have been found to exist in other cooperative or regional programs. There are people that have a difficult time working together as a team. How does one begin to cooperate when in the past he has competed?

4. Roman Catholic programs

Without doubt the more structured hierarchial organization of the Roman Catholic Church would make it more amenable to shared services, regional programs and other programs for the fuller utilization of resources. Though this paper is not a statistical study on Roman Catholic versus Protestant programs, there does appear to be some support to the first premise stated in this paragraph. This would be rather logical inasmuch as the structure is more closely knit. Though even here there is considerable parish autonomy which negates progress at times (M6, 266).

Education figures high in the Roman Catholic program. About one-half of the expenditures of the 153 dioceses and archdioceses and the 17 942 parishes are for elementary and secondary education (P11, 50). Generally speaking these schools have had reputable standing and in some instances there is evidence of superior educational programs. Many Catholic schoolmen are very conscientious in their drive for excellent schools, so much so that some desire quality or nothing. Thus the oldest school in central Louisiana was closed rather than offer inferior work. It was replaced with a religious education center (P11, 49).

The evidence appears to indicate that the largest share of schools are closing for financial reasons. Costs are spiraling. The religious orders are not keeping pace, thus lay teachers are being hired at higher salaries. As wonderful as the new media are and grand the educational innovations may be, they cost considerably. These costs, as well as others, are forcing the closing of many schools--nearly 700 Roman Catholic schools within three years and only 210 opening to replace them. The enrollment drop figures at about 750 000 during three years (P11, 47). The Boston schools lost almost 8 000 pupils during one year (P11, 48). Figures such as these take on new dimensions when it is noted that there are a little over 5 000 000 pupils in the K-12 (Kindergarten to grade 12) levels (P11).

Some observers are saying that the drop in enrollments and the closing of schools is more than financial, but rather an underlying problem. One Catholic writer says:

> We repeat, if the Catholic community were truly convinced that the separate Catholic school system is the necessary way to pass on the faith to the next generation, then they would find the money. . . . In a nation which spends $25 billion for tobacco and liquor and $26 billion to operate its public elementary and secondary schools, money cannot honestly be the principal problem. At least not yet (M6, 281-282).

A top Catholic educator has suggested that this crisis is "not only a crisis of financial limitations but also a crisis which involves the very reason for the existence of private schools (K19, 74).

Though the critical situation that has brought on the great number of school closings within the Roman Catholic system should not be taken lightly, yet the majority of these closings have occurred among schools with 100 or fewer pupils. This would give indication that aside from the general financial problems of higher costs and less internal support as well as the philosophical problems of purpose, there is yet another issue. This issue is not unique with parochial schools but is found in all small schools, as the literature bears evidence. In a nutshell it is the inability to offer the complete curriculum, the resources, the enriched program, the services and similar features (D10, 55). As this paper has noted, public schools have consolidated, regional service centers have sprung up all over the land and media have been put into use in avenues never dreamed of but a few decades ago.

Consolidation is being tried in some systems. Several Roman Catholic schools in the Twin Cities area of southwestern Michigan have merged. "Accomplishing the merger required sensitivity and regard for one another's problems." It seems that without this merger the schools involved would have had to either close or very drastically curtail their services.

> But the three parishes set out to demonstrate that in unity there is strength. The merged system's first year is eloquent testimony to the intelligence and dedication that was brought to the effort (C26).

Catholic literature gives evidence of the concepts of shared services, cooperative action, shared facilities and central coordination. McCluskey, a Catholic spokesman has the following to say:

> Once a central control comes over the parish schools, intelligent planning for expansion can take place. Economy can become the keynote. Facilities can be shared as much as possible.

> Several neighborhood schools can make use of expensive facilities like auditoriums, gymnasiums, home economics departments, and industrial arts wings. If needed, school busses can be used to bring pupils to these centrally located facilities (M6, 265).

This same author further amplifies this concept of overall planning for the good of all in the following statement:

> We speak loosely of a Catholic school system but only a few dioceses have begun to approach the education systematically. The diocesan school board and superintendent's office should henceforth allocate schools and priorities in building, pass on additions, consolidations, and suppressions of schools. They should have the authority to designate special schools to be located at strategic points in the diocese (M6, 263-264).

He further brings out the needs in the schools that have not been adequately cared for in the past. Among the inefficient situations that exist are the convents in many areas. Many are not fully utilized, however, central locations with minibuses or station wagons being used as shuttles might alleviate the problem (M6).

It should be mentioned that the Roman Catholic church does not share the general opinion held by so many Protestants regarding the separation of church and state. They very actively solicit tax monies and services from the public. It is quite evident at this juncture in history that the church is looking to public money to pull them through. The following quote supports many of the ideas presented in this paper with the exception of church-state involvement, which is an entire subject unto itself. In looking to the future . . .

> There will be closer cooperation with public schools. In some places, shared time will become common. Catholic programs will be designed around those offered by public schools, supplementing some and avoiding duplication of expensive specialized programs, such as remedial reading.

> More contact, shared time, coordinated special programs, public use of vacated Catholic classrooms--all are going to make closer colleagues of public and Catholic educators in many communities (P11, 53).

This cooperative mood is noted in much of the literature. Koob feels that the parochial school has unique advantages. They can cooperate with public schools but retain their independence. The parochial school could cooperate in the inner city programs and possibly accomplish more than the public schools in that there usually is less red-tape and more mobility of personnel. Cooperative training programs, in-service programs, joint institutes and workshops could be implemented (K19).

As executive secretary of the National Catholic Educational Association, Koob's remarks take on considerable weight. "Cooperative efforts are not only desirable but will be necessary" (K19, 80). His overall thesis is to take the best of the public schools and yet retain that which is unique within the parochial school system. Koob, along with others, realizes that cooperative efforts will be required.

Yet within the Roman Catholic system there is an element who are being "totally unrealistic" in not recognizing the need for change (C27, 45).

> The antiquated structure of governance and finance in Catholic education frustrates efforts by the religious orders and congregations "to continue, improve, and strengthen" the Catholic school. One Conference of Major Superiors of Women Religious described their own helplessness to effect improvement on a large scale because each parish continues to guard the autonomy of its parish school. After viewing the shortage of sisters and the poverty of the small parish school, the provincial superior may judge that cooperation, even consolidation, with neighboring schools is vital for a school's survival (M6, 266).

The trend of thinking within the Catholic system sounds very much like that found in public schools. Many realize that there must be cooperative/regional action if they are to survive.

The desire to see progress is seen in the following statement:

> Their objective is not to just do a patch-up job that will enable parochial schools to linger on for a few more years. It goes far beyond this band-aid approach, in an effort to help Catholic schools evolve into new, revitalized institutions that can contribute to the formation of a real educational partnership (C27, 45).

Many of the comments mentioned have had definite ideas of cooperative action with public institutions. As mentioned, much of this area is rather gray, legally speaking. The illustrations to follow are taken primarily as they pertain to internal programs within the church's system; however, it should be kept in mind that funding for many of these programs is from public sources, such as NDEA and the such.

The movement towards cooperation is seen in the following:

> One force that may be weakening parish bonds has not in general weakened the spirit of religion, however. Such a force is the trend toward supraparochial organizations. The horizon of the modern Catholic is broader than that of his parents, and this breadth of view is evident in the numerous broad organizations transcending parish boundaries. . . . All of these movements have strengthened Catholicity and created a bond of solidarity among Catholics of similar interests. Yet these supraparochial societies and movements have to a certain extent reduced the individual Catholic's contacts with his own parish (C67, 301).

The supraparochial organization might be roughly equivalent to an intermediate unit, a cooperative or regional organization, in that they are above the local organization in structure. Note the observation regarding the reduction of individual contacts. From the literature, secular and otherwise, this depersonalization and becoming lost in the crowd is an ever-present danger.

The cooperative concept is found in some institutions of higher learning of the Catholic church. Notre Dame and St. Mary's College in South Bend, Indiana cooperate in extracurricular activities, calendars, grading practices, exchange of students and professors.

Two colleges in Louisville, Kentucky are cooperating in the operation of their academic offices and student affairs offices with plans of doing the same in financial affairs. Several colleges in Minnesota are working together with the idea of merger (M6, 249-250).

On the negative side, note the following condition, which is almost self-evident in its "moral":

> It will be a happy day, indeed, when the scandal of four Catholic women's colleges in the same city blithely going their independent way to mediocrity will be replaced by the closest of collaboration among themselves and with neighboring private and public institutions (M6, 250-251).

On the other hand there are several Catholic colleges that are involved in consortiums involving other private and public institutions, such as at Worcester and Boston, Massachusetts. Immaculate Heart College in Los Angeles is planning on joining the Claremont Colleges, itself a cooperative college program with several denominational backgrounds (M6, 249-250).

Catholic action in cooperation is also found in the instructional television field. The Archdiocese of Brooklyn has an ITFS (Instructional Television Fixed Service) network in Brooklyn and in the Borough of Queens. This system serves the 240 elementary and secondary schools of the area which involves 220 000 pupils in 5 300 classrooms. They will broadcast over 12 channels, four of their own, plus seven VHF channels and the UHF educational channel via cable (M34, 45).

Cooperation among ITV programs is seen in the Interdiocesan Television Associates which represents the following dioceses or archdioceses: Boston, Detroit, Los Angeles, Miami, Milwaukee, Manhattan, Rockville Center on Long Island, Brooklyn, San Francisco and Washington D.C. Aside from this cooperative effort, they are members of MPATI of Indiana (C63, 1).

Pool purchasing is practiced in many areas of the United States. The largest of these programs is in the Archdiocese of New York which has a staff of 50 people handling $22 000 000 worth of purchases annually. There are 28 such offices about the country serving a total of 45 dioceses. They even have an International Association of Diocesan Purchasing Agencies who annually exchange ideas on vendors and pricing policies as well as other mutual topics (D16, 2).

The Youngstown Diocese in Ohio is another example of one of these units. It operates in liaison with the treasurers office and functions as a unit with the diocese of Cleveland and Erie. It acts as a purchasing agent and not a selling office. They place orders, not serve as a market. Volume buying brings prices down, the savings of which are passed on to member institutions of the dioceses. A small profit is retained for staffing and administration (D16).

One of the major areas of service noted in this study is that of media, which is similar to the situation found in the public schools of the nation. One difference that will be found in many situations is that the media component serves various phases of the educational arm of the church, not just the day school. They frequently serve the CCD (Confraternity of Christian Doctrine) classes and other parish and diocesan organizations.

One example of a smaller center is that of the Diocese of Bismarck, North Dakota. Because of a limited budget they do not handle many 16 mm films, but they do have filmstrips, tapes, records as well as the previewing of posters and some types of recordings.

This center rents its media. The 16 mm films are few, short in length and low in rental--$2 and $4 daily with weekly rental being four times the daily rate. Filmstrips rent for a dollar per day, except certain lower priced units that run 50¢. Tapes are one dollar per week and non-musical recordings are 50¢ weekly.

The patrons are appraised of the available media via an annotated catalog. The diocese serves the western portion of the state which is rather sparsely populated. Without doubt many schools and parishes would be devoid of much media were it not for such a service center as this (K21; B32).

A similar center is in operation in Youngstown, Ohio. It is under the direction of the Confraternity of Christian Doctrine of the Diocese of Youngstown. Media services are similar to other such establishments, such as Bismarck, however, inasmuch as Youngstown is a larger area, more emphasis is placed on 16 mm films. In addition the Knights of Columbus, a Catholic organization, has given them funds for films. Their rates are similar to those listed in North

Dakota. 16 mm films rent for two dollars per day and are to be returned the day following the showing, this being via United Parcel Service (D17).

The Archdiocese of Atlanta, Georgia has a rather small school system in this predominately Protestant area, however, they do operate a central audiovisual library which is "rather complete" (O2). The Diocese of Savannah, Georgia has a similar center to serve the schools and parishes. This collection has filmstrips, records, and tapes. Distribution is by mail while ordering is via a catalog which is updated via newsheets. A mobile religious education library will assist in in-service training of teachers and clergy. Video tape equipment is utilized in the mobile unit (S33).

One of the most outstanding regional media centers operated by the Roman Catholic church is possibly the one serving the Archdiocese of Detroit. It is centrally located in the older section of the city. The center has fallen heir to a modern elementary school with an auditorium, library, classrooms, offices and similar facilities. One wing of the school is leased to the city for special education classes.

The center is divided into two major areas: the secular and the religious. The secular section has been financed heavily by federal funds, while the religious component is in a separate room, for rather obvious reasons, inasmuch as it is supported directly by the church. As a whole the operation has a worth of several million dollars, though the religious collection is very modest and apparently has a value in the thousands. The later is more self-sufficient with rental rates being utilized such as at Youngstown and Bismarck. Their media rental rates are similar, other than films rent from one dollar to sixteen each.

The multi-media center has been geared primarily to the secular and to the day school, though the Cardinal has shown interest in the program and was quoted as saying the center was a must, regardless of funding sources. It is thus that the religious collection is growing and is to be used by the parishes also.

An indication of the use being accorded this facility is found in the cumulative circulation statistics which show over 5 000 film presentations annually. In addition, over 500 filmloops, 2 000 filmstrips, 350 records, 200 transparencies, 140 tapes and cassettes, and 1 700 games and displays were circulated. Over 1 000 requests could not be filled, though this was a drop from over 1 800 the prior year. In larger urban areas, some of the less expensive media will generally be used less, relatively, than that in the smaller, rural areas where schools are not as complete in their local collections. As anywhere, the 16 mm film collection is one of the most expensive collections, which none but the more wealthy centers can afford. Again, it is here that regional programs come to the fore, whether the system be public or private.

The diocese is similar to the intermediate unit of administration, which frequently is the organizational base for regional educational service centers. Though media services are relatively common in the educational arm of the diocesan program, yet other services are available in some places. For instance the Diocese of Houston, Texas also offers special education programs via the public schools, though not on their own, they do act as agents. Health screening in vision and hearing is offered. The Public Health Office assists them with rubella immunizations, TB testing, VD education and the like. The St. Joseph Hospital sponsored a drug education program, which was attended by public school teachers also.

The Houston Diocese utilizes shared time on a computer for some of the office records, though this service does not extend to all the schools of the system. Curriculum guides are written cooperatively by the dioceses of Texas and Oklahoma. Textbook selection is done on a cooperative basis also. Additionally the Board of Education of the diocese assists in consolidations, and other phases of administration (M16).

Within the Protestant and Catholic systems there are several definite differences from the public regional and/or cooperative programs. One of the most obvious differences is in the funding. One notable exception to this is the Detroit Archdiocesan Multi-media Center and no doubt other similar programs that have been funded via federal title funds in secular programs. When the religious education collections are noted, the austerity budgets are again observed. Volunteer funding all too typically falls short of tax funding.

Another major variance in the programs is that religious groups usually incorporate both school and church usage where both institutions are involved within the denomination. Church usage usually involves the Sunday School and similar weekend or church-oriented programs, whereas the day school will also involve secular items.

5. Ecumenical programs

Here and there about the land ecumenical groups are forming regional and/or cooperative resource centers or clearinghouses. Of course there are numerous cooperative associations for the production of Sunday School lessons, the operation of certain seminaries as well as the exchange of ideas or offering of services.

The National Association of Evangelicals is made up of conservative denominations and offers services of various types to member denominations or individual member churches. These services encompass chaplaincies, higher education, evangelism, theology and Christian education (N5). The varied types of associations mentioned generally offer services that would not be of the nature of those offered in regional educational service centers. Though many services might be similar in type, they would not usually be similar in degree or breadth.

There does appear to be evidence that ecumenical groups are forming on a more structured basis. Several samples will be cited, though the reader should not feel that this concept is commonplace. It appears that it is on the cutting edge of Christian education, however.

The National Association of Christian Schools is an arm of the National Association of Evangelicals. This group is not really regional in nature in that member schools represent 40 states and 35 foreign countries. They total 390 in number and represent various grade levels (N4). Similar organizations serve smaller areas. Among these are the Arizona Association of Christian Schools, the New England Association of Christian School Teachers and the Christian Educators Association of the Southeast. Though the NACS is international in scope, it will be described in more detail, in that in a number of schools it would be similar to a smaller region and its services would or could be roughly parallel in many ways to the public regional organization.

The three major thrusts of this association are:

1. To assist in organizing and establishing new schools.
2. To strengthen existing schools.
3. To provide a national voice for the cause of Christian education and otherwise unrepresented schools (N4, 5).

The services of the organization are not identical or even always parallel to a typical regional educational service center, however, many aspects are worthy of note in the light of this paper.

1. Publication of Christian Teacher and NACS Today.
2. Assists in teacher recruitment and preparation as well as placement and certification.
3. Administrator placement service.
4. Access (Self-Study) Program--assist member schools in self-analysis for self-improvement.
5. Student accident insurance.
6. Teacher hospitalization and life insurance.
7. Christian School Book of the Month Club--automatic receipt of the selection, though may return if not satisfied.

8. Purchasing services with emphasis on audiovisual equipment and institutional furnishings.
9. Analysis of legislative activity--representation at federal conferences, information on federal aid and church-state issues.
10. Curriculum aids, such as books, bulletins with special emphasis on unique fields such as creation and Christian viewpoints on literature.
11. Book publications and distribution.
12. Promotion of Christian education through Christian School Week and general promotional literature.
13. In-service workshops.
14. Consultation and distribution of resources on starting schools.
15. Parent aids such as books and pamphlets are made available.
16. Standardized tests made available in broken packages for smaller schools.
17. School forms made available.
18. School board aids and similar publications (N40, 5-21).

An optional service offered is the accreditation of schools. The average member school has nine teachers and 184 pupils, as well as an administrator who teaches 13 hours each week. The total membership encompasses about 4 000 teachers and 60 000 pupils, which is roughly the size of a typical public school region or intermediate district. The difference is that the NACS is international and the region typically serves an area with a driving radius of one hour. The problems are very similar but the logistics are very different (J7, 24).

The Ecumenical Resource Center for the Greater Rochester, New York area was in the proposal stage at the time of this investigation; however, it is reported here in that it is regional in nature and does indicate a cooperative action among church groups. Additionally, few examples have been found of this sort among church groups.

Most of the Protestant and ecumenical centers have been geared to the overall religious education needs of the church rather than day school purposes exclusively. From all evidence this would appear to be most logical and efficient.

The goals of the Rochester center are listed as follows:

1. To acquaint those involved in the religious education enterprise with the resources available in the community.
2. To coordinate and disseminate information.
3. To provide information concerning the availability of resources.
4. To assist the constituents in the implementation of their programs.
5. To design and test experimental projects.
6. To train interdisciplinary teams to meet community and congregational needs.
7. To assist in the evaluation of the center and its program (E3, 1).

Among the basic assumptions from needs assessment is the following statement, which is the same idea heard over and over again, but couched in different words:

> Educational isolation exists within the Rochester area. One hand does not know what the other is doing, from local congregations all the way to the denominational bodies; within public and parochial education; and among urban, suburban and rural sectors. Often efforts are duplicated because one group does not know what the other is doing (E3, 3).

Other factors in the rationale include the need to become aware of local resources as well as how to utilize them. Smaller and rural churches are at a disadvantage frequently inasmuch as they lack adequate professional assistance. There is a need to raise the quality of religious education, and "a belief that this can be done as people work together and share in the process" (E3, 3). Finally they feel that secular education has much to offer via workshops, projects and information (E3, 3).

This center will serve a population of about 940 000 in the Genesee Valley with a church membership of 700 000 in 450 Protestant and Catholic parishes (E3, 4). Initial efforts for the center are listed as: To . . .

1. Develop and maintain a file to community resources, such as curricula, audiovisual materials, books and periodicals, equipment and machines, human resources and other agencies.
2. Publish a periodical which includes a calendar of events, evaluation of new materials, sources of supplies, background information on contemporary issues and general media, on-going media reviews.
3. "Train, coordinate and assist interdisciplinary teams to meet specific needs and to train volunteers to assist in the on-going program of the Center" (E3, 10).
4. Have workshops to improve educational quality in such fields as media, teacher education in the church, new teaching approaches, goal setting and group processes.
5. Engage and encourage research in educational fields (E3, 10-11).

In the beginning the center is to have two persons on the staff, including a secretary to assist in the many functions of this clearinghouse-type center. It will be noted that much of this center's function will be of a coordinative nature as well as of a disseminative nature. Actual media production and circulation is not involved at this stage (E3).

A similar program has been launched in the Wilmington, Delaware area. The first project was an ecumenical church fair with 24 producers exhibiting and 2 000 attendees from six states observing the demonstrations and using the workshop experiences. Ninety-five per cent of the 250 respondents to a questionnaire were favorable to similar ventures. Six Protestant denominations and the Roman Catholic church were involved in this program (C42, 1).

As the group progressed they identified the following problems:

1. Too narrow a concept of Christian Education.
2. Lack of enthusiasm for vital approach to Christian Education.
3. Lack of readily available training.
4. Very narrow choice of curricula and resources.
5. Lack of sharing and coordination of resources.
6. Costly overlapping (C42, 1-2).

They further listed some immediate and future needs. Immediate needs included the following:

1. Resource library with audiovisual materials and equipment, currently run by the Wilmington Council of Churches and available to churches in Delaware. Further discover other resources available on a cooperative basis in the Delmarva Peninsula. Develop a "people" resource file.

2. "Cross-fertilization of Ideas and Experiences"--ecumenical discussion groups, newsletter and small CERFS (Christian Education Resource Fairs).
3. Area Training events in leadership, seminars in theory and content, teaching skills and teacher retreats.
4. Training teams available for consultant work on a volunteer basis (C42, 2-4).

The future needs include three area resource centers in the Delmarva Peninsula which includes Delaware and portions of Virginia and Maryland. Additionally they desire a mobile unit similar to those operated by public libraries which will be complete with equipment, materials, package programs etc. It might be used in migrant camps and summer beach ministry also (C42, 4).

Budgeting for the program is figured at $19 700 annually, distributed as follows:

1.	A full-timed Coordinator & Administrator	$9 000
2.	A well qualified secretary	5 000
3.	Office space	1 200
4.	Printing, postage & office supplies	2 000
5.	Program materials & equipment	2 000
6.	Planning (Consultant & Evaluation)	500
		$19 700 (C42, 5)

This funding would come through the Delmarva Ecumenical Agency which is authorized by the coalition of denominations, local churches and community groups.

The Rochester program is said to be a protege, to some degree of the Wilmington program. Similarly in the Baltimore area there is the

Mid-Atlantic Institute of Christian Education (MAICE) which sponsors a mobile training unit staffed by an ordained United Methodist minister.

The organization is sub-titled as "An ecumenical agency created by regional denominational jurisdictions to enable a cooperative approach to education: (M9, 1). As of this writing the Teacher Learning Center is a prime project which includes workshops, workshop planning, consultation service and video-tape consultation service. Two and three hour workshops are offered to 15 to 30 people at a cost of $3,50 ($3.50) per person. Five to six hour sessions are $6 each. Video sessions are $100 for six one-hour sessions on the same day with $15 for each additional hour. These services are brought to the groups involved via the mobile unit. Funding is from fees and contributions from parishes and denominations (M9).

TLC on Wheels refers to the Mobile Teacher Learning Center, which is an ecumenical approach to teacher education. Five denominations--four Protestant and one Catholic sponsor this unit which is similar to the one in Delaware mentioned previously. Micro-teaching and Instroteach (an intensive training in observation skills) are the two specialties. Church gifts and workshop fees pay for the mobile workshop (C25).

The same pastor from Livermore who has operated the mobile unit, has expanded the concept to include a media center in Mountain View, California. A center has also been opened in Berkeley. The Mountain View facility is in a Roman Catholic High School. The director of the Teacher Learning Center is a Protestant minister, his associate a Catholic sister. Several media center coordinators work partial shifts while the secretary works about 30 hours weekly. Additionally, nine persons conducted or assisted in workshops.

The center in Berkeley, California is located in a Presbyterian church. The Board of Directors includes people of the American Baptist, United Methodist, United Church of Christ, United Presbyterian and Roman Catholic communions. About 3 000 are assisted annually in more than 350 parishes. Though most of the services are in Northern California, yet people in 15 different states have been aided.

The Media Resource Center in Mountain View has more than 300 filmstrips, 150 records, 100 tapes, 50 picture-poster sets, 300 books, 25 education journals and 20 complete sets of curricula. Browsing and previewing may be done at the center. For an annual fee of $50 a borrower may use 25 items. Additional items are two dollars each. The user receives a semi-annual listing of resources and is able to borrow items for a week. Additional bibliographies are available for three dollars and are 60 pages in extent (T9).

The idea seems to be accepted as plans are underway to expand. A Teaching Learning Center has been initiated in Scottsdale, Arizona. "Each project is seeking to respond to specific regional needs and interests yet attempting to maintain several of the unique, proven features of the Teacher Learning Center" (N24, 3). These features are:

1. Focus on Teacher Education
2. Ecumenical leadership and outreach
3. Mobility of services and independent organizational structure (N24, 3).

The evolution of this program is interesting. The mobile unit was based in Livermore, California and operated from the pastor's home. The media resource center was in a room in the Methodist church in Palo Alto and later was moved to the Catholic High School and which also is the headquarters of the Santa Clara County Office of Religious Education of the Archdiocese of San Francisco. A branch media center was opened in Berkeley and the last report said it was to become the permenent office of the TLC. These cities are about one hour's driving time from each other.

Most of the centers such as those just described appear to be rather insignificant when compared to the larger and more wealthy regional school districts, yet it is surprising what is being done with the limited funding which typically is solicited, donated by denominational bodies, individual churches and groups as well as fees collected from workshops and media loans (N24; C25; T9; T7; T8; T6).

Though many, if not most, denominational or interdenominational programs may appear anemic compared to their public counterparts, yet empirical evidence frequently indicates that private programs obtain more mileage from the funds expended. The literature indicates that these fledgling programs are meeting the needs of their regions.

6. Summary and comment

The desire for independence and local autonomy is found in the church community even as it has been observed in the public scene as a whole. Though most local parishes belong to a conference, synod or diocese, yet the ties among the churches are generally rather loose. This situation is probably more so among Protestant communions than among Roman Catholic churches where the hierarchical control is stronger.

No doubt government funding is an alternate avenue of support for church operated schools, however, for the most part, the assumption is made that the church operates its own enterprises. This chapter has noted that one of the largest religiously operated regional prorams in this country has its secular media program financed to a large degree by federal funds. Its religious education program is funded by the church itself.

For the most part the Roman Catholics appear to have a more cohesive educational program than most denominational groups. The Lutherans have the second largest parochial system in this country, though the Seventh-day Adventists usually are considered to be the second largest internationally. Though the Lutherans have some cooperative ventures among their schools, for the most part they are operated on a local basis.

The National Association of Christian Schools is a major effort for Protestant schools with conservative lineage, to cooperate in various avenues. Though the NACS is not regional, it is cooperative and is doing much of what is done by public regional programs. Additionally many organizations serve specific purposes that might be generally classed as cooperative.

There are several ecumenical programs springing forth about the country, such as in Rochester, New York; Baltimore, Maryland; Wilmington, Delaware; Pittsburgh, Pennsylvania; and in Berkeley and Mountain View, California. These centers range from primarily coordinative and disseminating in nature to centers with many of the trappings of the regional educational service center, including in-service education, media services, mobile units, etc.

Whereas some of the centers mentioned are geared to the day school, most of them serve the broader field of Christian education with emphasis on the religious education phases rather than the secular facets. In many areas the local parochial schools can take advantage (whether properly and constitutionally or not is not the question at this juncture) of the services of the local regional center operated by the taxpayers. Where this is done, the church operated center supplements with materials not available at the public center. This concept is also utilized to a degree by the Mormons in their educational program as well as in many programs of released time for instruction by other denominations.

Though the number of regional type service centers in church circles is relatively meager, the interest in the concept appears to be spreading, particularly along ecumenical lines.

CHAPTER 21

PHILOSOPHY AND ORGANIZATION OF SEVENTH-DAY ADVENTIST SCHOOLS

1. Introduction

The recommendations of this paper will lose much of their impact if the reader is not aware of the basic beliefs and philosophy of education of the Seventh-day Adventist church. In a similar way one will fail to see the place of the regional service center concept within the Seventh-day Adventist system of education unless he is aware of the organizational structure and some of its rather unique facets that should make it quite amenable to cooperative action.

The philosophy of education is quite necessary to an understanding of the church's educational mission. Its aims and objectives are similar to those of secular institutions, however, it will be noted that they go beyond, thus giving a philosophical base for their existence as a separate entity.

The Seventh-day Adventist church and its closely allied school system are probably more like that of the Roman Catholic system, in many ways, than that of their fellow Protestant organizations. It is considerably more centralized in control than many denominations. These factors should be considered in light of the material presented in this paper.

2. Beliefs of the Seventh-day Adventist Church

Quite obviously this paper is not a doctrinal presentation on various theological questions as seen through the eyes of one particular denomination. On the other hand a very brief outline of the basic tenets is felt to be in order so as to establish a more sound basis for the philosophical viewpoints to follow.

In brief the Seventh-day Adventist church is generally considered to be conservative in viewpoint and evangelical in doctrine. Though it professes no creed other than the Bible, several documents have been published that embody the basic tenets of the denomination. Most authoritative among these is the Church Manual (G7, 192-198).

Adventists believe God is the creator and sustainer of all. They believe in the Trinity and accept Christ as their Saviour. Man was created in God's image and the restoration of this image is a key objective of life. Man, however, does have the freedom to choose.

They accept the law of God and willingly obey His commandments, though they fully realize man is saved by the grace of God. Obedience is an outcome of their love for God. This following of God's orders includes the Sabbath commandment as written in the scripture, not as changed by man.

A literal acceptance of the fall of man, sin and the ensuing heaven or hell for those accepting Christ's atonement or rejecting it is fundamental to Adventist doctrine. They believe in the soon return of Christ when He will resurrect the saints who have been resting in the grave and translate the living believers. They will be taken to heaven while the wicked are dead on this world. For 1 000 years Satan contemplates his actions and then the New Jerusalem will return to this earth. After a brief encounter with Satan and his cohorts the wicked will be destroyed forever.

Seventh-day Adventists pay tithe and offerings. They accept Christ's example in baptism as an indicator of public acceptance of the Christian faith. Christ's example is also followed in the foot washing service and communion table.

In that the Scripture claims that there will be prophecy during all eras of the church and in so stating gives tests of the prophet, the Adventists believe that one of their number has qualified on all counts. Mrs. Ellen G. White, who guided the church during its formative years, has left a rich legacy in her writings that harmonize with the scriptures on all counts. They do not supercede but amplify the Biblical Word. This prophetess has left a definite imprint on the educational thought of the church, as will be footnoted in the next section.

The entire theology of the denomination is characterized by the high regard of man's potential. This includes his physical and mental health, his intellectual status, his social well-being and the permeation of the spiritual in all avenues of daily living (P19, 3; W21; W22).

3. Educational philosophy

There is little doubt but that the Seventh-day Adventist schools could accept virtually all of the aims and objectives of the various standard philosophical statements that have been published in America and no doubt those in other Christian nations. However, all such statements would have to be taken with the full acknowledgement of the supremacy of God and the acceptance of man as His supreme creation on this earth. An unselfish attitude would have to permeate all aims for God is love and His followers must do likewise. The educational philosophy would have to be practical and workable. "Education is good and the process of imparting it is an important work. It is co-extensive with life itself so could never be completed even though a person should obtain eternal life" (C2, 71). "By some, education is placed next to religion, but true education is religion" (W18, 108). It is thus that education is very practical to the Adventist and his daily life.

An official statement of Seventh-day Adventist educational philosophy is found in the Working Policy of the church.

> The Seventh-day Adventist Church recognizes that God, the Creator and Sustainer of the earth, and the entire universe, is the source of knowledge and wisdom. In His image God created man perfect. Because of sin, man lost his original estate, and Christian education, by perfecting faith in Christ, restores in man the image of his Maker, nurtures in man an intelligent dedication to the work of God on earth, and develops in man a practical preparation for conscientious service to his fellow men.
>
> Seventh-day Adventists believe that knowledge of this personal God can never be derived by human reason alone, but that God has communicated His nature, purposes, and plans through divine revelation. The Holy Scriptures of the Old and New Testaments were given by inspiration of God and contain a revelation of His will to men, and they constitute for the church the only unerring rule of faith and practice. The church membership accepts the gift of prophecy as manifested through special revelation to the Seventh-day Adventist Church in the life and ministry of Ellen G. White. In this respect Seventh-day Adventists accept divine revelation as the guiding principle in their philosophy of education. They believe that their teachers are servants of God and their students, children of God.

> The church operates a school system to ensure that its youth may receive a balanced physical, mental, moral, social, and vocational education in harmony with denominational standards and ideals with God as the source of all moral value and truth. His revealed mind and will are the criteria for right and wrong. The stated interest of the church is in the optimum development of the whole child for both this life and the life hereafter.
>
> Seventh-day Adventists conduct their own schools, elementary through university, for the purpose of transmitting to their children their own ideals, beliefs, attitudes, values, habits, and customs. The government maintains a highly developed public school system for making citizens; but in addition to being patriotic, law-abiding citizens, Seventh-day Adventists want their children to be loyal, conscientious Christians. There is peculiar to the church a body of knowledge, values, and ideals that must be transmitted to the younger generation in order that the church may continue to exist. In this process the Biblical principle of social transmission is recognized: "Tell ye your children of it, and their children another generation" (Joel 1:3).
>
> A true knowledge of God, fellowship and companionship with Him in study and service, likeness to Him in character development, are to be the source, the means, and the aim of Seventh-day Adventist education (G8, 85-86).

A more comprehensive philosophy of education as it pertains to higher education is sponsored by the North American Division Board of Higher Education of the church. This document has much of the orthodox philosophical terminology which is absent in much of that noted so far, though in essence the thought is similar (H12; H10).

In summary it can be said that the Seventh-day Adventists believe that Christian Education is a critical part of their objectives. Though public schools play their role admirably, yet they must leave out a most important facet of life. Education is not complete without the concepts of God and His ways.

In light of the topic of this paper it should be noted that the Christian viewpoint of life definitely indicates that as Christians we are to live as brethren, so much so that non-believers will know that we are Christians because of our love and concern one for the other. The cooperative, non-selfish, sharing attitude is to be found in the true Christian. There is nothing to be found in official statements of the church or the scripture that would counter-indicate the utilization of the cooperative/regional concepts as noted in this report. To the contrary the theological and philosophical thought renders a rich background for cooperative action among the saints (God's chosen people on earth, the Christians).

In facing reality it must be acknowledged that many of the members and administrators of the denomination have not received a full realization of what can be done when working together to the fullest. Far too much exists that is basically self-centered and parochial. It is hoped that the broader approach to cooperative action will become more common-place. There is evidence that this is occurring more and more.

4. General organization of the Seventh-day Adventist church

Inasmuch as the Seventh-day Adventist church is world-wide in its operations and because it is a rather tightly-knit organization, the entire world is systematically divided into geographic units. First comes the division, such as the Southern Asia Division and the Far Eastern Division. One of these divisions is that of North America encompassing United States, Canada and Bermuda. To the south is the Inter-America Division and further south, that of the South American Division, and thus the world is appropriately divided into divisions.

Each division is further divided into either union conferences or union missions. A conference is virtually self-sustaining while a mission is not. Inasmuch as this paper involves the United States, which is the major population base of the North American Division, it will be discussed in further detail. The Division has few missions, thus each sub-division is generally a union conference. The Union Conferences are:

TABLE XX

UNION CONFERENCES IN THE NORTH AMERICAN DIVISION

Union Conference	States in the Union Conference
Atlantic	Maine, New Hampshire, Vermont, Connecticut, New York, Massachusetts and the island of Bermuda.
Columbia	Pennsylvania, Ohio, West Virginia, Virginia, Maryland, New Jersey, Delaware and the District of Columbia.
Southern	North Carolina, South Carolina, Kentucky, Tennessee, Gerogia, Alabama, Mississippi and Florida.
Southwestern	Arkansas, Texas, Oklahoma, New Mexico and Louisiana.
Central	Wyoming, Nebraska, Colorado, Missouri, and Kansas.
Northern	Iowa, Minnesota, North Dakota, and South Dakota.
Lake	Wisconsin, Illinois, Indiana and Michigan.
North Pacific	Washington, Oregon, Idaho, Montana and Alaska.
Pacific	Arizona, California, Nevada, Utah and Hawaii (GJ2, 26).

Each union conference is divided into local conferences. The conference is generally a single state, though in some instances two states comprise a conference, such as Arkansas-Louisiana Conference;

while in other instances one state is split into two or more conferences such as in Washington and California.

Three union conferences are being given special notation in this study, thus note that the Pacific Union has the following local conferences: Northern California, Central California, Southern California, Southeastern California, Arizona, Nevada-Utah and Hawaii. The Central Union is comprised of single state conferences: Nebraska, Wyoming, Colorado, Kansas and Missouri plus an all-black conference (regional) covering the entire union territory. These regional conferences exist in each of the union conferences east of the Rocky Mountains. The Lake Union is similar to the Central Union with each state being a conference: Indiana, Michigan, Illinois and Wisconsin, plus a regional black conference.

Within most conferences there are church districts. These are usually comprised of those churches being pastored by one pastor and possibly an intern or young minister. In extent they might be as large as some public school regions, though in membership population they are much smaller.

Michigan, California and other areas utilize regular regions that are roughly the size of R.E.S.C. units and involve various churches, pastors and other organizational units such as Dorcas Welfare or youth regions. Again in population they are generally smaller than intermediate units that serve R.E.S.C., though they encompass a greater population base than the church districts.

The regions of Michigan Conference are called districts though they encompass areas roughly equivalent to typical intermediate units which are frequently the base for the regional educational service centers (R.E.S.C.). For instance District 8 listed in the chart covers similar territory to the media component of the Berrien County Intermediate School District. This district also serves Cass County in the media field. It is evident that the regional concept is not foreign to many of the conferences, though the full potential probably has not been tapped.

TABLE XXI

MICHIGAN CONFERENCE DISTRICTS

District	Number of Ministers	Number of Churches	Membership
1	7	14	692
2	9	23	1 129
3	7	11	1 515
4	7	19	1 206
5	5	11	748
6	7	11	1 426
7	10	15	1 575
8	14	18	5 059
9	2	8	757
10	7	9	1 831
11	4	6	763
12	8	10	1 998 (M27)

District 8, incidently, is also the largest district in membership of the church in Michigan, as well as the Lake Union. In addition to the 5 059 members one must consider well over a thousand students at Andrews University who do not maintain their membership locally, but rather keep it at the home church in another area. One must also consider close to another thousand children who are not official church members, inasmuch as they are not baptized, a rite that doesn't occur till about 10 to 14 years of age. This gives a total of over 7 000 Adventists in the region (M27; G7).

The headquarters of the denomination is in Takoma Park, a suburb of Washington D.C. This is referred to as the General Conference. The North American Division also has headquarters there and shares many of the officials who act in dual capacities. The basic administrative structure of the General Conference is replicated in the division, the union and the local conference, though obviously with less personnel involved. Most of the major secretariats are found in each unit though frequently in the less populated areas one individual will carry more than one office, such as the secretary of education will also act as youth activities leader and be in charge of the summer camp program. The Lay Activities Secretary will also act as the Sabbath School Secretary. Larger conferences will, as might be expected, have associates to single secretariats, such as the Secretary of Education and his associate who will act as elementary supervisor. There may still be other positions under this department, varying generally according to the population, church membership and relative wealth of the area. Though funds are distributed by the various administrative levels of the church, local funding is still the major sources of church and school revenue (G8).

Annually the North American Division executive committee meets in the Annual Council and transacts major business affecting the church in North America. Similar meetings are held in other divisions. Though the General Conference delegates and observers number into the thousands, the Annual Council for the division has a base numbered in the hundreds. Actions passed by this council are published in the official church paper, the Review and Herald.

The conferences have similar sessions to those just mentioned. The Biennial session is typical of local conferences at which time officials are elected, such as the president, secretary, treasurer and departmental secretaries. Churches have delegates to these sessions and in addition representation is usually present from the union conference. It is somewhat of a pyramidal structure with each level being very similar in organization.

Virtually all officers of the church are elected by delegates rather than by popular vote. This is true from the local conference through the General Conference. Of course the delegates are elected by a popular vote within the churches and a majority vote is required in the various sessions of the church (G8).

Inasmuch as the regional educational service center generally is a full service facility with services covering instruction, administration, pupil and professional services, special education services, health and guidance services as well as media services it would appear in order to give an indication of the administrative and service departments of the Seventh-day Adventist denomination, first as seen in the General Conference in Washington D.C. and then in sub-organizations. The non-Adventist reader of this paper will no doubt be better able to appreciate how the recommendations fit into the total program of the church.

Any implementation of the regional educational service center concept within the Seventh-day Adventist church might very conceivably directly involve half of the major departmental offices and at least four of the service departments. If the R.E.S.C. units would involve but the education department, they would be only partially effective in the light of the total concept as revealed in this study. Regional/cooperative programs attempt to harness the total resources within the region and denomination in order to present a better education program. It is apparent that the resources must be identified if they are to be utilized.

The General Conference offices in Washington D.C. administer the approximately 2 000 000 member church around the globe. The officers include a president, secretary, treasurer, field secretaries, various associates to the above offices as well as other administrative officers. The departments of the church are operated by secretaries and various associates and assistants as well as the clerical staff. Each of these departments is found on the division, union conference and local conference levels. Additionally the local churches have similar officers. The various departments and their functions briefly stated are listed here.

EDUCATION: Coordinates and advises in regard to all day and boarding schools that are academic or vocational in nature. They also handle parent education, and other forms of informal education. Reports, manuals, periodicals and other aids originate from this office.

HEALTH: The church operates scores of hospitals, sanitariums, rest homes, clinics, medical launches and similar operations. The Health Department gives direction to this work as well as health education for the public.

PUBLISHING: Coordinates publishing activities in the scores of publishing houses as well as the sales of these presses via the religious colporteurs and retail sales outlets (M1).

LAY ACTIVITIES: Directs the evangelistic activities of the laity of the church, Dorcas-welfare programs, relief supplies etc. The enlistment of the layman into the church mission is a key aim.

COMMUNICATIONS: Coordinates the telecommunications mission of the church internationally, which includes several international programs such as the Voice of Prophecy, Faith for Today and It is Written. This office also handles public relations.

TEMPERANCE: Alcohol and drug education are promoted through this department. Narcotic Education, Inc. is under the aegis of this office. The latter organization caters to non-church groups. The work of the Temperance Department includes institutes, publications, and varied forms of promotion.

PUBLIC AFFAIRS AND RELIGIOUS LIBERTY: This department is involved in public issues, constitutional rights, minority rights and similar problems. They work with other organizations in the fight for religious liberty and protection of the constitution.

STEWARDSHIP AND DEVELOPMENT: The steady increments required for a growing denomination are the goals of this office. Seventh-day Adventists are generally listed among the highest givers. The tithing system is practiced with the addition of freewill offerings and of course trusts, major gifts etc. This department promotes these practices.

SABBATH SCHOOL: The non-academic church school ("Sunday school") is the prime area for this department. Vacation Bible Schools, branch Sabbath Schools and similar evangelistic endeavors are promoted by the Sabbath School Department. Training, lesson helps, teaching aids etc. are offered by the office.

MINISTERIAL ASSOCIATION: The increase of ministerial efficiency via publications, field schools, institutes and other avenues is the aim of this department. In a sense it is an in-service program for the clergy.

MISSIONARY VOLUNTEER: This department is also called the Youth Activities Department in some places. It promotes various youth organizations, publications, congresses, reading courses, summer camps, winter camps, personal evangelism projects and a host of other activities for the children and youth.

NORTH AMERICAN REGIONAL: The specialized work among the negro peoples of North America is the prime concern of this office. Publications, regional conferences, institutions that cater to the black population, local churches and other facets are covered by this department (N44; G32; G6).

In addition there are service departments of the denomination that are found principally in the Washington D.C. headquarters. Though all the major ones will be listed, several will be pointed out, inasmuch as they have special significance to this report.

AUDIO-VISUAL SERVICES: Till recently this office was consultive in function, covering the fields of film, radio and television. Of more recent date it has coordinated the radio and television production facilities of several denominational programs. A studio is now located in Thousand Oaks, California, a suburb of Los Angeles and close to Hollywood with all its specialized film and telecommunications facilities. The Voice of Prophecy Radio program, Faith for Today and It is Written television programs are produced here. As might be surmised this new facility will be able to offer more sophisticated equipment than any one would be able to operate otherwise and in addition the facilities will be better utilized, no doubt (I14; I15).

CHRISTIAN RECORD BRAILLE FOUNDATION: This facility fosters publications, both of a book and non-book nature, for the blind and those with sight problems. Nonsectarian services are paid for by the public but the denomination cares for sectarian publications, periodicals, recordings and services. Summer camps are also oponsored by the Foundation. Many blind people work for the organization, thus it is a service unit, per se, as well as a service unit in its publications and services offices are located in Lincoln, Nebraska (N22, 244-247).

ESDA SALES AND SERVICE AND ESDA TRAVEL SERVICE: This department is a purchasing department. The main office is in Washington D.C. with branches in New York City and San Francisco. The travel service and the Transportation Bureau are virtually the same office. For instnace, in San Francisco the offices for both units are in the same building. Purchasing, packing and shipping are conducted from the same office (N22, 1329, 381-382).

INSURANCE SERVICE: Headquarters for this office are found in the General Conference quarters complex in Washington D.C.-Maryland. A branch office is located in Riverside, California. Denominational properties are insured through this office. Fleet policies have been available to workers of the church at times, as well as other insurance policies which frequently have lower premiums than competition. The office also carries on a safety education program (N22, 592-593).

Among other services and bureaus are the following:

ASSOCIATION OF PRIVATELY OWNED SERVICES AND INDUSTRIES (ASI): Institutions and businesses owned by church members and abide by Associaiton policies, however independent of denominational control.

FAITH FOR TODAY: International religious television program with accompanying correspondence courses, offices etc.

VOICE OF PROPHECY: International radio program that is religiously oriented, accompanied by correspondence schools, publications, media production, offices etc.

HARRIS FOUNDATION: Administers the national woodworking plants that are primarily located on college and academy campuses and which serve as work centers for students and pupils.

SEVENTH-DAY ADVENTIST WELFARE SERVICE INC. (SAWS): A relief and welfare program that operates internationally, with depots on both coasts equipped for packing and distributing of supplies for disasters, famines etc. It should be pointed out that the denomination has scores of vans scattered across the country with relief supplies, portable hospitals, canteens etc., ready for immediate service.

NATIONAL SERVICE ORGANIZATION: A service to those being inducted into the military service of their country, a division of the Young Activities Department of the General Conference, Union and Local Conferences. They assist with difficulties, give guidance and overall direction to servicemen. Several service centers for the men are located in key locations, especially near medical training facilities.

ELLEN G. WHITE ESTATE: Care for the writings, documents etc. of Mrs. White. They are the legal guardians of the manuscripts and publications.

There are other lesser bureaus for various and sundry activities, legal organizations, trust services, World Food Service etc. Various standing committees are in existence as well as ad hoc committees. Obviously an organization involving over 2 000 000 members can be quite complex, thus this presentation has been but an overview (G32, 19-23; N22).

5. Organization of the Seventh-day Adventist Schools in North America

The schools of the denomination are operated by the various administrative levels of the church according to the main clientele being served. For instance, Andrews University and Loma Linda University serve the world field and thus are classed as General Conference institutions. The colleges primarily serve the union territory, thus they are primarily sponsored by the union conferences. Within Andrews University the undergraduate college serves the Lake Union.

Boarding academies (secondary schools) are operated by the local conferences. Usually there is one college in each union conference and at least one boarding academy in each local conference, though there are exceptions to this where the membership does not warrant such or in other cases numerous academies are operated because of the large membership.

Junior academies and day academies are usually operated by several churches cooperatively. Representative boards are elected for each of these institutions as well as for local schools on the elementary level, whether operated by one church or a group of churches (G8; G13; P3).

The Board of Regents and Commissions is an arm of the General Conference. Commissions serve under the Board of Regents and serve various fields of the church work about the world. The Board of Regents is the "denominational accrediting authority for all educational programs operated in the name of the Seventh-day Adventist Church" (G8, 90).

The General Conference also assists in intercollegiate relations between North American colleges and universities and overseas post-secondary schools. Adventist Colleges Abroad is the official agency for this program. A co-ordinator does liaison work among these schools and the students involved. With proper arrangements a student is able to spend a year overseas and obtain resident credit in the States. Currently this program and similar cooperative arrangements are in effect to various degrees in South America, Europe, and Australia. Credits can be transferred from various overseas schools to schools in this country. Just recently a major study was completed that will assist in evaluation of overseas credit (B49). The major difference between the credit transfers and the formal affiliation is that one obtaining credit with prior arrangement is assured of acceptance of that credit through the contractual agreement between the institutions (G8, 92-93).

One other educational board will be mentioned in brief at this juncture, namely the Board of Higher Education of the North American Division. It is independent of the Department of Education. It is directly under the division administration and was implemented at the 1971 Autumn (now Annual) Council to "serve as a central planning body and coordinating council for SDA higher education on the undergraduate, graduate, and professional levels" (G19, 1). Relationship with the Department of Education of the General Conference is assured through board membership of the Secretary of Education and his associates, as well as other educators, namely the college and university presidents. Appointive members come from other facets of the educational fraternity (G19, 1-3). More mention will be made of this board in another chapter of this paper.

This inter-relatedness of personnel on various boards does much to bring about some coordination of activity. Take for example the local conference secretary of education has rather direct control over the elementary schools and junior academies, though each is governed by a locally elected board. The academies, the secondary schools, are basically under the control of the union conference, though the local conference secretary is a member of the board of each academy in his boundaries and has certain perogatives inasmuch as the academy is within his area. The conference president is chairman of the academy board where there is a boarding academy while day academies have local chairmen (P3, Academy section 5).

The liaison between the academies, especially the boarding academies, and the day schools is not what it might be in many situations. This is a possible weakness that should be noted. A similar situation exists, to some degree, between the secondary schools and colleges. The independent boards of each school are good in many ways, no doubt, but on the other hand coordination between schools is loose, if virtually non-existent. Conference secretaries of education frequently find themselves relatively powerless to cope with certain situations. Study needs to be made with reference to the professionalization of certain aspects of the organization of the school system of the denomination. Possibly there needs to be a shift in control, to some degree and in some aspects, from the local lay board or conference boarding academy board to the professionals for it is quite apparent to many that efficiency and quality can be bettered on some levels of the educational program. Clarification must be made even on local elementary boards and junior academy boards as to board function and administrative function.

Certain services are centralized at different levels in the educational structure. All denominational credentials are issued by the denomination upon the recommendation of the lower conferences. Generally speaking the requirements are equivalent to those of the various states with the addition of religious education requirements. Usually the union conference cares for credential check-ups and does the issuing of certificates (G13, 111).

Retirement benefits are handled through the General Conference, though the institution or conference hiring the person pays into the retirement fund which is usually referred to as the sustentation fund. The installments do not come directly out of the paycheck of the workers, as is the case in many public school systems, thus the actual pay is higher in reality than what appears on the surface. Similarly the church pays health insurance, either of a commerical nature plus the denominationally operated rebate program or just the latter (G8).

The teacher is hired by the conference and is paid by the local conference though the local church or churches pay a percentage towards his salary, such as 80 per cent by the local church, 20 per cent by the conference during the school year and the reverse during the summer months when the teacher is working directly for the conference at summer camps, workshops, summer school etc. These figures may vary but are illustrative. This subsidy system is found at all levels of church organization and is spelled out in the various union conference educational codes (P3).

Property titles are held by the conferences rather than individual congregations. Insurance is through the General Conference Insurance Service. No doubt it is apparent that the Seventh-day Adventist church and its school program are somewhat more centralized in ownership and control than most similar groups. Comment is also often heard, about the centrality of theology and hermeneutics no matter what corner of the globe. No doubt this inter-related organization pattern is part of the reason.

However, for whatever has been done to make an effective church and an efficient school system, it is apparent to most all Adventists and Adventist educators that there is room for improvement. Another chapter will bring out these weak spots and needs more clearly.

6. Summary and comment

An understanding of the recommendations of this paper would be impossible without some background into the beliefs of the Seventh-day Adventist church. Similarly the educational philosophy would not make complete sense without this foundation.

In general it can be said that the Seventh-day Adventist church is evangelical and conservative in theology.

The writings of Mrs. White have had a profound influence on the Adventist educational philosophy. Education and religion are considered as one in essence. Adventist education is not good secular education plus Bible teaching or moral instruction; to the contrary religious thought permeates all disciplines. Moral issues are involved in all fields.

Seventh-day Adventist educational philosophy looks at education as being a well-rounded experience in which all facets of the man are developed inasmuch as they are all inter-related in their effects. This philosophy entails the development of man for the present life as well as the eternal life promised in the Scriptures to all who accept God's gift.

The second basic section of this chapter entailed organization. The church is divided into world divisions, each comprising a major segment of the world, such as North America, South America, Southern Asia, etc. Divisions are divided into union conferences or union missions depending upon whether or not they are self-sufficient. The missions cannot maintain their own program. Within the North American Division, which is the division involved in this report, there are many union conferences, such as the Pacific Union, the Lake Union, etc. Each union is comprised of local conferences, which are usually states though some states are divided into several conferences and in other situations two states comprise a local conference.

Local conferences frequently are divided into regions, which are roughly analogous in area to the regional educational service unit. Local districts involve several churches under one pastor.

The General Conference of Seventh-day Adventists in Washington D.C. is world headquarters. The North American Division is also quartered in Washington and most officers also serve in the General Conference in a dual capacity. Secretaries are over various departments such as education, communications, Sabbath School, etc. These offices, in essence, are replicated in each of the lower organizations of the church, though less personnel are involved.

The Department of Education coordinates the educational work of the church. There are two General Conference institutions of higher learning, Andrews University and Loma Linda University. Each union, in most cases, has a union-operated college. Each local conference generally has a boarding academy, and in some places there are more than one. Many day academies (high schools), junior academies (junior high schools) and elementary schools are about the country. These are either run by a local church or by a group of churches.

Democratic procedures operate in that boards are elected for each school. Additionally there are commissions, ad hoc committees, standing committees, etc. operating on various levels with board members involved from many locales giving an inter-related program.

Funding comes from various sources with subsidies coming from various levels. Teachers are hired by the conference, academies or colleges. Properties are held by higher church organizations, not local congregations. A centrality of organization is found that is not common among Protestant groups.

Already there is a strong basis for programs as suggested in this paper. Much already is being done of a cooperative or regional nature, thus little change in organization is necessitated.

CHAPTER 22

PROBLEMS AND NEEDS OF SEVENTH-DAY ADVENTIST SCHOOLS

1. Introduction

Even though the Seventh-day Adventist school is based on an educational philosophy that is permeated with religious thought, when it comes down to day to day operation, it is very similar to its sister public schools and other parochial schools. Virtually all the problems and needs as found in the schools of the land as outlined earlier in this paper apply to Adventist schools. The inflationary squeeze on finances is similar, but probably much worse for in public schools taxes can be raised easier than parishioners can be convinced of boosting tuitions and offerings.

Rather than repeat each of the problems as mentioned in a previous chapter, along with associated evidence, this chapter will bring out some of the phases that are unique or have particular importance within the Adventist system.

Though it is obvious that the regional/cooperative concept is not a panacea for all of education's needs and problems, yet it is very possible that a large proportion of those noted, especially as they pertain to Seventh-day Adventist schools, can at least be partially alleviated by this approach. Undoubtedly the applications will have to be modified and very possibly the entire North American Division will have to be considered as the equivalent of a typical "region" in many situations. It is thus that the materials thus far presented as well as the needs here presented are germane to the theme of this paper.

2. Enrollments

Seventh-day Adventists have not found a mass closing of schools to be necessary. In the past they have not depended upon non-salaried personnel nor upon tax funds for support, thus their financial problems are basically inflationary, increased usage of exotic equipment and some feel a problem of disenchantment or disinterest among some of the membership.

During 1967-68 enrollments appeared to reach their peak and since then the secondary schools have dropped slightly, in some areas. The gain or loss by unions from 1967-68 to 1971-72 are as follows:

Atlantic Union	7.6% gain *
Canadian Union	.53% gain
Central Union	2.5% gain
Columbia Union	12.6% gain *
Lake Union	7.2% loss *
North Pacific	4.8% gain
Northern Union	6.1% gain
Pacific Union	.6% loss *
Southern Union	15.0% gain
Southwestern Union	6.0% gain (G9).

It should be noted that those unions with an asterisk face a loss between 1970-71 to 1971-72. Two of these had been facing a five year overall drop already. The interpretation thereof is not clear, though this situation seems characteristic of other schools. Declining birthrates are possibly involved.

Two of the unions, the Pacific Union, which includes California; and the Lake Union, which includes Michigan, are the two major areas under study in this report. Both of these show a secondary enrollment that is slipping, slightly.

Elementary enrollments have been keeping quite steady. Reports from 1969 to 1972 differ slightly. The latest report shows a gain of 481 pupils in 1971-72 over 1970-71 in the North American Division. The total enrollment in K-8 being but a bit over 50 000, thus either figure would not indicate an astounding growth or loss, but rather a steady, relatively slow growth pattern over the years (G10; G16; O11).

One issue that is disturbing is that relatively less of the church's children and youth are attending denominational schools. From 1962 to 1967-68 attendance kept pace with the increased membership, but henceforth the ratio has dropped rather steadily, though not drastically (L3, 3).

The church membership in North America is growing steadily with a net gain of about 10 000 annually with the 1969 membership being 426 295 (G31, 2). It is apparent that the comparative growth rates of membership and enrollments, though changing somewhat, are not momentous; however, the trend change may or may not be significant.

It is interesting to note that the church Missionary Volunteer Society, an Adventist youth organization, reached its peak membership in 1968 also and the following year dropped slightly (G31, 4).

In recent years about 50 per cent of the church-attending children and youth have been in denominational schools. A study in San Jose, California revealed this percentage for the K-8 (Kindergarten to 8) age group. A study in New England showed 47 per cent of the academy age (9-12 grade) and 52 per cent of the elementary children were in church operated schools (S57). This would indicate a great potential for expansion.

However, even though there is a potential, the figures indicate a general trend that needs to be reversed. For instance in one of the fields, namely the Northern California Conference, the enrollment is lower in the primary grades than in the upper grades. These statistics, along with others mentioned, give indication of enrollment growth that is not what it might be (N39; N38).

3. Finances

In the middle of these tumultuous times, the church has suffered in many ways. Though this paper is not designed to study the ills of organized religion, yet note must be made of the situation for it has affected the Seventh-day Adventist church and it's schools also. True, observation of the Annual Statistical Reports indicate that the denomination is continuing to grow with a larger budget being voted each year. However, mission offerings have not increased as rapidly as has tithe given. Proportionately Seventh-day Adventists in America are not supporting their schools as well as in previous years. Compared to other denominations they are doing very well, but nonetheless, there is a weakening (G36).

Much evidence could be assembled to prove that educational costs have increased. The cost of education index, on a per capita basis, was running $393 in 1959-60 for boarding academies. By 1962-63 it was $496, giving a 26 per cent increase over the quadrennium. Housing costs rose 19 per cent over this same period. The story could be repeated time and time again. Salaries have increased, the cost of goods and services have risen, more educational technology has been utilized and of course software has increased in value as well as in quantity. The increments have been made and few could argue otherwise (K12, 87-88).

Though costs have risen drastically, yet the costs for a Christian education have actually dropped in proportion to the annual income. A study in the Great Lakes area indicated that though the median annual income in the United States was close to $10 000, which was an increase of 950 per cent from 1940 to 1971, yet tithe increased but 806 per cent, and surprisingly academy (secondary school) charges had increased but 700 per cent and Andrews University rose 650 per cent. Thus it takes less hours of work to pay for an education now than 30 years ago (010, 4-5). Note, however, that the tuition differential between public colleges and private colleges is greater in that public monies can increase subsidies more easily than gifts.

It must be recognized, however, that the psychological effect of rising costs, proportionate or otherwise, still looms as a fear.

Parents recollect what they paid and then compare it to current tuition. It is undoubtedly astounding. Possibly more education needs to be given, more public relations work carried out and a general increase in communications.

4. Curricula

An enriched curriculum with a wide variety of course offerings tuned to the tastes and needs of the pupils is a basic need. Yet, how can such a diverse curricula be offered in a small school? Earlier in this paper there was discussion regarding the needs of the smaller schools as well as the generally accepted viewpoints on school size.

When the sizes of Seventh-day Adventist schools are noted, it is quite obvious that very few of them qualify as being adequate. For instance many authorities and states were cited, listing the minimum elementary school as having one teacher per grade. About the only locations having such facilities are those about major denominational institutions, such as colleges, hospitals and publishing houses. The vast majority are much smaller.

The Oregon Conference has one of the largest densities of Adventists in the States. In 1971-72 the largest elementary school had 283, which was in Portland, the largest city. This was grades one through six. The junior academy, seven through nine, had 105. There were four schools with grades one through nine or ten which had 200 to 300 pupils. In 1967-68 there were 41 schools with a total enrollment of 2 642, which included elementary and junior high pupils. By 1971-72 a new school had opened but seven had closed, though the total enrollment was 2 795. In each case the closed schools were smaller ones. By any kind of reckoning these schools are minimal in size down to inadequate as far as most authorities are concerned (O12).

As to high school size the figures suggested vary but to take Conant's figure of a minimum of 100 graduates, which is frequently quoted, few Seventh-day Adventist schools would qualify as being sufficiently large to offer a comprehensive curriculum (C30). Again take Oregon with its three academies: Portland Union, Milo and Laurelwood. The 12th grade enrollment for each of these ran at 62, 62 and 114 respectively in 1970-71. The latter two schools are boarding institutions, incidently. Only one other school in the Northwest would qualify under the 100 minimum criteria, namely Auburn Academy in the state of Washington. It had 144 12th graders and was one of the largest academies in North America (G16; S4).

In noting the 100 minimum graduating class, only the following eight North American academies would qualify according to the 1970-71 closing report:

* Canadian Union (Alberta)	110	12th	graders
* Blue Mountain (Pennsylvania)	110	"	"
Takoma (Maryland)	125	"	"
* Auburn (Washington)	144	"	"
* Laurelwood (Oregon)	114	"	"
Loma Linda Union (California)	106	"	"
* Monterey Bay (California)	129	"	"
* Rio Lindo (California)	168	"	"

* Boarding school (G45; S1, 8).

The only two day academies are both located in two of the largest Adventist centers, the General Conference Headquarters and at Loma Linda University with its medical and dental schools, and accompanying hospital. This table indicates that about 10 per cent of the secondary schools in North America would qualify as minimal; the other 90 per cent would be inadequate.

The examples given are for the largest schools and one of the conferences with the largest percentage of Adventists. This is not typical, however. Of the 85 academies in North America, 21 are in California--about one fourth. Enrollment-wise California has 4 587 out of the North American total of 16 853. Additionally there are 3 292 in junior academies in North America which include nine or ninth and tenth grades. This would give a total enrollment of North American secondary pupils of about 20 000, or the equivalent of about ten typical public high schools (G9).

The Central Union, comprising the states of Wyoming, Colorado, Nebraska, Kansas and Missouri had 1 006 in their six academies at the beginning of the 1971-72 school year. Almost 50 per cent of this enrollment was in the two academies of the Colorado Conference. The academy in Missouri had 114 pupils. The one in Kansas had 113. It is quite apparent that even the largest of the schools is not minimal and it is just as obvious that some areas, such as Missouri and Kansas have such small enrollments that an adequate program is up to question according to normal criteria (G9).

Though California has the largest percentage of any state by a good margin, yet if all the academies were put into one school, they would but make up a good sized high school as found in some relatively small cities.

The situation among the junior academies is even more disheartening. It should be noted that most junior academies are operated in conjunction with a K-8 elementary school with the 7th and 8th grade teachers generally being part of a departmental program which includes a ninth or ninth and tenth grade. At the beginning of the 1971-72 school year there were 191 junior academies (or 9 grade schools) enrolling 3 292 pupils. This would average less than 17 secondary pupils per school. About one-third of these junior academies have just the ninth grade, however, even with this figure it is obvious that the schools are very small. There are no junior academies (secondary pupil enrollment) that have even as much as 100 and only seven are over 50. Five of these are in California and one in Illinois and one in Michigan. The one in Illinois is at a denominational hospital and the Michigan school is at Andrews University, an Adventist school (G9).

The above figures take on further significance when it is considered that Conant's report suggests a bare minimum of 125 per grade in 7th through 9th grades and 250 per grade in a three year junior high school for efficient operation (C66, 38-39). Of course none of the denominational junior high schools would qualify. The Andrews University Junior High School has 74 in the ninth grade, which is the largest single grade enrollment of a junior high. This is considerably lower than Conant's minimum of 125 (G9).

The elementary school enrollment problem is usually not as critical when it comes to the offering of an ample program. Oregon was mentioned with its enrollment of 2 642 in K-10. This is one of the most populated conferences as far as church members are concerned. The entire Central Union with its five states runs about the same in K-8. Kansas has eight schools with 245 pupils. Missouri has 13 schools with 384 pupils in K-8. In Kansas the average school is about 32 pupils while in Missouri it is less than 30. The overall, average-sized Adventist elementary school in the United States and Canada is about 50 which is still far from 200 to 250 as is suggested by some as a minimum (O11; G10).

From a numeric standpoint it would appear to be virtually impossible to offer an adequate curriculum or for the pupils to really achieve a quality education. Though it is apparent that weaknesses do exist, and further documentation in this chapter will amplify these weak spots, yet evidence indicates that in spite of these obvious handicaps the pupils are gaining much. Standardized testing is utilized in most all of the schools. The Iowa Test of Basic Skills, the S.R.A. and the California Achievement Tests, and possibly others, have been used to show that the pupils are keeping up with the national norms and even going higher in most areas (E21, 7).

Though it may be argued that small schools have advantages, as has been pointed out earlier in this paper; yet, it is also very possible, if not probable, that certain advantages accrue to those that are of a certain minimum size. No doubt it is possible to increase the quality of these smaller schools, without an undue increase in costs. Of course this is a premise of this paper: The curriculum can be bettered. The instruction can be improved. The advantages of the larger schools can frequently be provided (N36; N37).

Though there is evidence that the Adventist schools are doing a creditable job in education from a secular standpoint as well as from a spiritual viewpoint; there also is a definite probability that it could do an even better job with certain facets of the program improved. Most any educators working within the system would agree there is ample room for improvement. The R.E.S.C. may be a partial answer to this situation.

5. Media

It is quite apparent to any alert educational observer that the educational media field has made tremendous strides in the last decade or two. This has been discussed and documented previously. It is also obvious that the standards in this field are increasing, as can be noted in comparing the various formal criteria that have been published by the American Library Association and National Educational Association (A16; A15). A similar document is published by similar organizations in California (C3).

Not all media specialists agree with the A.L.A.-N.E.A. standards, however, they are the most authoritative available, no doubt. It is thus that the Standards for School Media Programs is used as a base for this discussion (A16).

In the print field these standards recommend 6 000 to 10 000 titles representing 10 000 volumes for schools of 250 pupils or over, or 20 volumes per pupil, "whichever is greater" (A16, 30). Of the 85 academies in North America, 250 pupils is a little above the typical enrollment figure, though the range is from 50 to 540 (G9). Of those that are academies separate from colleges, none really reach the 10 000 volume mark. Madison Academy has 16 488 but did have a collegiate institution connected to it till rather recently. Two academies in Canada have over 10 000 books available but this is primarily because they are part of a college. However, no matter what the affiliation, the books are directly available to the pupils, thus there is availability.

In checking the holdings of the various academies about the land, the figures are fairly close to the minimum in many cases. Of the seven academies of the Atlantic Union only two have the minimum or a little over. In Canada the two college-related academies are all right but the other two are very meager with less than 2 000 volumes. Only one of the six in the Central Union is near the minimum, namely Campion Academy. All but one of the eight schools in the Columbia Union are in the 6 000-10 000 range. Only two of the nine academies in the Lake Union are up to the minimum 6 000 though the Andrews University Academy Library is but across the parking lot from the University Library with its quarter million volumes. Five of the nine academies of the North Pacific Union measure up to the minimum though none are up to the 10 000 mark. One of the three Northern Union schools is close to the 6 000 figure. Six of the 23

Pacific Union Conference academies are definitely below the 6 000 level, though another 13 are close to the 6 000 volume level. Again, none has reached the 10 000 overall minimum level. La Sierra and Loma Linda Academies and Pacific Union College Preparatory School are adjacent to institutions of higher learning, thus augmenting their collections. As a whole the print collections cannot be listed as being "woefully inadequate," inasmuch as the A.L.A.-N.E.A. Standards are generally considered to be rigorous. It should also be noted that there are more schools below 250 enrollment than above. Generally the day academies are smaller than the boarding academies. The median size of the day academies being 158 and the boarding academies 212. Nevertheless a certain library size is a necessity for adequate research and curriculum support no matter what the enrollment (G9; G16; S21, 23).

In the field of magazines but ten of the academies are even nominally within the recommendations of the 125 to 175 titles suggested, with most of them near the bottom. Nine of the schools were within the suggested newspaper range of six to ten titles per secondary school. No figures are available as to standards or actualities within the academies in regard to verticle file materials (G16; S21, 23).

Recommendations are for 500 to 1 000 filmstrip titles representing 1 500 prints or three prints per pupil, whichever is greater. The writer is not aware of any academy, junior academy or elementary school within the denomination that is even within the audiovisual software "league," let alone measure up to the filmstrip recommendation or the 500 filmloop recommendation. The recommendation for 16 mm films is access to 3 000 titles. All of these schools can utilize the state university libraries and similar collections but the denomination has nothing approaching this anywhere. The Pacific Union Conference collection is the only one of any size. Even Andrews University, one of the two Adventist universities has less than two dozen prints. The tape/disc collection recommendation is 1 000-2 000 titles representing 3 000 prints or six per pupil, with few anywhere near this figure (A16, 30-31).

Various other standards could be cited in the audiovisual field, however, it is quite apparent from the author's personal visitation, interviews with educator's and ex-pupils and similar observations that the denominational audiovisual software as well as hardware situation has not in most cases developed anywhere near what it should, according to the criteria that has been established.

It should be noted that the writer has visited nine of the thirteen North American colleges and universities and has become well acquainted with five of the campuses. He has been to 17 of the 38 day academies and of the 45 boarding academies. He has taught in four junior academies in three states, six elementary schools with two of these being connected with full academies. Additionally he has become closely involved with many other schools, thus giving him considerable first-hand knowledge from which to make empirical commentary.

During a 12 month period 14 000 students passed through the Teaching Materials Center at Andrews University. These students come from all quarters of the world. From hundreds of observations by these people it is obviously apparent that they are awed by the vast array of media available in the center. None from Seventh-day

Adventist secondary and elementary schools have ever observed that their school has anywhere near what this center has. The rather strange thing is that this center would not pass all criteria set-up for elementary and secondary schools as established by the American Library Association and National Education Association! Where does this leave the elementary and secondary schools of the denomination? The answer is rather obvious (A32).

A rather comprehensive study was made of the Seventh-day Adventist elementary and intermediate schools in Michigan in regards to the audio-visual situation. The study was based on the 1968-1969 school year. The school size, number of teachers, number of classrooms and total enrollment for each size is given in Table XXII.

TABLE XXII

S.D.A. CHURCH SCHOOLS IN THE MICHIGAN CONFERENCE 1968-1969

Teachers in school	No. Schools	Classrooms Involved	Enrollment
1	13	13	156
2	15	30	420
3	5	15	308
4	5	20	414
5	6	30	617
6	1	6	167
8	2	16	323
	47	130	2 405

(E20, 1)

Within these schools, which are scattered over the state of Michigan, there were 12 16 mm projectors, 9 8 mm projectors, only one slide projector, 37 filmstrip/slide projectors, four sound filmstrip projectors, 43 overhead projectors, two opaque projectors and no microprojectors. There were four each of filmstrip and slide viewers. There were 56 record players and 39 tape recorders but no listening stations. There were 13 radios and 53 viewing screens. In the production field the study noted eight copying machines and 20 duplicators (E20, 2).

This same study revealed the following information relative to audiovisual software.

TABLE XXIII

AUDIOVISUAL SOFTWARE IN MICHIGAN CONFERENCE CHURCH SCHOOLS 1968-1969

	Size of school in number of teachers								
	1	2	3	4	5	6	7	8	Total
filmstrips		83		220	125	40		194	662
8 mm film loops		2				1			3
tape & disc recordings	92	155	141	365	80	165		185	1 181
art prints									0
maps	90	84	58	222	74	24		62	614
transparencies	31	35	172	125	367	5		125	860
slides					60	5			65

(E20, 3).

If all these schools were grouped together they would have an enrollment of about 2 400. For comparison purposes the schools are treated as one inasmuch as the media standards are based on an enrollment of 250 pupils per school, which is more than most of the church operated schools in Michigan. If the schools were so compared they should have, in order to measure up to the ALA-NEA criteria, 7 212 filmstrips instead of 662. There would be 3 606 film loops rather than 3 and 14 424 recordings instead of 1 181. There would be 2 000 slides rather than 65 and similarly there would be 2 000 transparencies compared to the actual 860. The suggested five wall maps per classroom is about the only item that compares favorably with the criteria--namely 614 in actuality compared to the standard of 650. The figures speak for themselves for the most part (E20, 26).

One factor should be considered in the above comparison. The schools are not one school, but rather are scattered over a vast territory. Detroit is closer to the New York State border than it is to the far extent of the state in the Upper Peninsula! It should in fairness be stated that the vast majority of the schools are in the lower portion of the Lower Peninsula, mainly in a band less than 200 miles from the Ohio, Indiana border; nevertheless the expanses are still formidable. However, the northern schools are very much in need of a quality education also even though they be smaller and scattered farther apart.

According to the A.L.A.-N.E.A. criteria for hardware there should be one 16 mm sound film projector to every 2 to 4 teaching stations.

If all the schools of the church in Michigan were considered as one school of 2 400 pupils with 130 classrooms, then the following observations might be noted. The actual count is 12 such projectors whereas the minimum should be 33 and the advanced standard would require 65. In addition they recommend five additional units in the media center. The "advanced" recommendation is for one 8 mm projector per teaching station and 25 at the media center. The study indicated a total of 9 whereas the criteria would indicate a basic 58 or an advanced inventory of 155 projectors.

The basic recommendation for 35 mm slide projectors with remote control is a ratio of one per five teaching stations with an additional two in the media center with the advanced rating being one to three stations with five in the center. There is but one projector in Michigan, though it is probable that many teachers bring their own to school--as they do in many schools across the country.

There are 37 filmstrip or filmstrip/slide projectors in the Michigan Adventist schools whereas the basic is one to three stations with an additional unit in the media center. The advanced recommendation is one to every teaching station plus five in the center. There should be a minimum of 44, thus the 37 rates quite favorably.

Sound filmstrip projectors, according to the criteria, should be at a ratio of one to ten as a basic and one to five for advanced rating with one to two in the center. Actual Michigan count is four where the standard should be 14 to 30.

Overhead projectors fare better in the comparisons for there are 43 in the schools compared to the recommended 132 to 134. There should be five to eleven opaque projectors--if they were in one school. The count is two. There are no microprojectors in the schools. Recommendations are a minimum of five in the school up to one per every two grade levels in the elementary school and one per department in the high school.

Standards for record players are rather involved, but the basic for K-3 is one per teaching station, one per grade level in 4 to 6 and one per 15 teaching stations in junior high and high plus 3 in the media center. Advanced recommendations give one per teaching station in grades K-6 and one per five stations on the secondary level. The existing number of 56 is not too bad for it is roughly one unit per two classrooms.

The 39 actual tape recorders is a better ratio than in some of the areas. The basic recommendation is one to every two classrooms in elementary schools and one unit to ten stations in secondary schools plus two in the media center. Advanced rating is one per station in elementary and one to five in secondary, plus ten in the center.

Listening stations should be at a ratio of one per three teaching stations for a basic situation and a set with 6 to 10 headphones for each of the teaching stations. Michigan has none as of this study, though it is known that at least one such center has been added since the study.

The comparisons in the hardware field are relatively good in some areas down to non-existent in others. It can be safely said that there is much room for improvement, though overall the hardware situation is probably in better condition than the software (A16, 45-49; E20, 2).

It should be observed that the official recommendations cover other hardware items which are not covered in the Michigan study but it is quite evident that very little of these other items exist in the schools of the denomination. The larger elementary schools have a few of these more exotic items and some of the academies are moving into these areas. It is but a beginning, however, and much growth is needed from all evidence noted.

One problem that exists that no doubt negates progress is apathy, fatalism and just plain poor morale. In other cases it is possible, if not probable, that ignorance and lack of contact with progressive programs has stifled growth. The Ellsworth study gives much indication of this type of thinking (E19).

Much of the problem evidently is on the administrative level also. A study of roles among Seventh-day Adventist Union Conference Secretaries of Education (Multi-state organization) as made by Stratton indicated the following:

> Those with the highest degree of formal education perceived of "medium" importance that the Secretaries encourage the union's college function as a visual aid center; while those with the lowest degree of formal education perceived this more positively as of "high" importance (S61, 74).

As a whole the interest in special school services such as speech clinics and guidance centers was rated low (S61, 126). The impact of this study is not clearly seen for from the general study of the literature it is very apparent and very clear that cooperative efforts and regional programs are very much accepted, so much so that most of the states are either actively doing such or are in study. It may be that these administrators have not been exposed to the newer educational innovations.

The apparent rather neutral tone of many of the observations received by Ellsworth in his study may have similar roots. Most of the teachers are college graduates and certificated with many of them holding master's degrees. The writer of this report can observe from his experience with teacher's-in-training and in-service teachers that there is considerable ignorance of the media field as a whole--including professors of education from the "old school." Many are not aware of what media can do for them. It is evident that much needs to be done to educate both teachers and administrators, as well as board members and the church public (E19).

6. Duplication of effort, lack of co-ordination

The problem of duplication of various programs, facilities and services can be verified empirically and statistically. The situation within Seventh-day Adventist schools and colleges might not be considered critical by some. Others could quite readily give evidence of some critical areas that might be somewhat catastrophic in their effects. Without doubt much can be done to increase the efficiency of the Adventist school program. In referring to the challenges facing the church and its schools, Doctor Hirsch, General Conference Secretary of Education says:

> . . . there has not been enough clearly expressed guidance from local boards and not enough coordination with the General Conference Department of Education. Our colleges, especially, have been permitted to develop like Topsy, without proper guidance. We have yet to develop a truly Adventist system for our educational work (H19, 5).

He continues by mentioning the proliferation of programs with the accompanying investment of millions of dollars. This problem is not confined to higher education, he states, but to all Adventist education. Evidently the denomination's highest educator recognizes the problem, thus giving encouragement to the solution of the problem. Little can be done to porcure a solution if a problem is not recognized (H19, 4-5).

Notwithstanding the fine organization of the church, there are many cases of inefficient utilization of resources. Generally speaking purchasing has been done by the local church and school. The larger institutions may have a purchasing officer though even some large institutions do not have a coordinated purchasing program. Frequently personnel are not utilized to their fullest professional or technical capacity inasmuch as "the right hand does not know what the left hand knows," as the proverb goes. In the media field frequently each department of an institution has its own collection of materials with few outside knowing of its existence, let alone of possible coordination and cooperation. Each school must fend for itself in media software and hardware.

Many of the specific cases being noted in the next few pages are first hand observations. It is accepted and acknowledged that many factors enter into any situation to make it difficult to solve awkward problems. No doubt the writer is not aware of all facets, thus the illustrations given are presented merely as samplings of what has been observed in many areas and thus it is felt that thought should be given to the problem as a whole, not necessarily to the case presented, per se, for personnel have changed and other circumstances have changed. The general problem still exists in many forms in many portions of the country.

In the lower Bay Area of central California at Mountain View there is a day academy serving grades 9-12 with an enrollment of approximately 270 pupils. About 20 miles to the north of this urban area is a feeder school of about 50 pupils, Burlingame. To the southeast Alta Vista school serves the eastern portion of San Jose, a city of 450 000 as well as suburban areas to the north. It's enrollment averages about 100. West Valley School with its 150 pupils serves the western portion of San Jose and many suburbs. Several blocks from Mountain View Union Academy is located the eight grade Miramonte Elementary School with an enrollment of about 300. A few pupils commute from San Francisco which lies about 40 or so miles to the north. Not all secondary pupils are in the day academy for many attend a boarding academy and of course many attend public high schools, though the day academy receives the largest portion (G16, S10; C32, 1).

Burlingame, West Valley and Alta Vista are all less than 25 miles from Mountain View Academy. Each of the elementary schools has its own board. The academy is a union school, thus each of the schools has representation on the academy board. The conference educational secretary is on each of the boards, either officially or ex officio, thus there is some co-ordination. However, on the "district" level there was little coordination of activity among elementary schools or between the academy and its feeder schools. For the most part each of the schools operates its own program.

Another example of duplicated effort is found at Loma Linda University in California. It is one of the two Adventist universities neither of which is large as universities go. Loma Linda had 3 527 in its regular sessions in the 1970-71 school year (G16, 1). This school has two campuses, one at Loma Linda with the various health-related schools, such as medicine, nursing, dentistry etc., and the other primarily liberal arts campus at La Sierra about 20 miles away.

According to last reports the audiovisual programs on campus were somewhat fragmented though efforts had been made to coordinate activities on the two campuses and among the various schools. For instance over $100 000 has been invested in television equipment alone, a sizeable investment, particularly for a relatively small institution. Similarly other investments have been made in other fields, indicating an interest in the medium and yet a coordinated program does not exist. Keith and Sharp, when speaking of the audiovisual operations at Loma Linda, said "If such a strong central facility is not developed, it is likely that many small ineffective facilities will develop around the campuses (K6, 10). Though an evaluation cannot be made as to the effectiveness, the situation at any campus of this size would more than likely be less than fully effective and definitely not utilize the media resources to their fullest, unless there were complete coordination (T19, 11). It must be emphasized that many factors are involved and thus the illustration is one of general problems that exist rather than a specific situation to be attacked.

Until 1970 Andrews University did not have a coordinated audiovisual department and even four years later the situation was not ideal. Various departments have their own equipment which is not available, generally speaking, to other areas. Andrews had a collegiate enrollment of 2 366 in 1970-71, which includes the college, seminary and graduate school (G16, 1). In addition there are laboratory schools with a combined enrollment of less than a thousand. Yet with this small enrollment, there is television equipment in the behavioral science department, speech-communications department, physical education department, elementary and junior high laboratory school and in the audiovisual department. All of this is in a school of about 3 000 total enrollment.

The James White Library has approximately 300 000 volumes and serves Andrews University. The master card catalog does have all books cataloged. The Music Department library is part of the library, thus scores and books are cataloged in the main library. The nursing library at Hinsdale, Illinois, about 100 miles to the west is also affiliated. The nursing school is located at the Hinsdale Sanitarium and Hospital, though the hospital does have some educational programs that are independent of Andrews University.

The laboratory high school has its own library as does the elementary school, which also has holdings for the junior high school.

The Berrien Springs Village Adventist School is about a mile or two from the university and has its own media collections, and in fact is independent in most ways from its "sister" schools up the road. There is no union catalog of any sort, other than duplicate cards have been sent to the two laboratory school libraries of the filmstrip holdings of the Teaching Materials Center in the University Library. Additionally there are other minor media collections about the campus with no appropriate method of knowing who has what. Duplication? Who knows? Resources being utilized to their fullest? (P35).

Another illustration of duplication and less-than-full utilization of resources is seen at Union College in Nebraska. This four-year college has less than a thousand students and yet in 1968-69 there were three curriculum libraries on campus. One was in the library. Several hundred feet to the south and on fourth floor there was an additional unit attached to the education offices. Several blocks to the northeast in the laboratory school there is an elementary unit. The library laboratory is mainly for secondary student teachers. Without doubt there is certain rationale for three such units, however, one cannot but wonder if the advantages outweigh the disadvantages of duplication, lack of variety and poor appropriation of funds for media, personnel and facilities. This problem takes on greater impact when it is noted that the college has been dropping in enrollment during the last several years (P39; G16, 1).

For all practical purposes each academy is an entity unto itself. The illustration of the schools in the south bay area near San

Francisco could be duplicated across the nation. There is little indication of any cooperative efforts among academies, nor between the academies and the satellite elementary and junior high schools. The same is true with the academies and the colleges. Till recently there was little in the line of consortia-type efforts among the colleges.

The various schools, quite obviously, are trying their best to offer the best they can within their budgets. Few would question the motives of any of the schools; however, most are attempting it on their own. Academy "A" purchases certain laboratory equipment for a physics course at a cost of several hundred dollars. This may be used for but a few weeks and then be stored for two years till the course is offered the alternate year. The item may be purchased by each of the 83 academies and some of the junior academies--or not be purchased by any but the wealthiest of the academies. The remainder just go without, or make-do with locally produced items.

Academy "B" purchases all the parts for a certain musical composition to be played by the concert band. This is used for several months and then finds its way onto a dusty shelf. Concurrently several hundred miles away academy "J" purchases the same and of course the same demise for the expensive scores comes to pass.

Elementary school "K" has five pupils in grade five, nine in grade six, three in grade seven and two in grade eight. When the textbooks are purchased they must be provided for the largest group coming through the school--nine in this case, plus an extra copy or two for late enrollees. It is apparent that many textbooks are outdated before they are worn out.

Enrollments at the various schools are usually not stable from year to year, thus certain equipment must be on hand for the largest enrollment. During slumps this equipment must be stored and of course depreciate, take up valuable warehouse space and tie-up capital. In the meantime a sister school has an influx of pupils and must purchase new desks and other items. It should be made clear, at this juncture, that many superintendents attempt to act as a clearinghouse for such situations, however, all too typically he is in charge of the schools of the conference (usually a state) as well as the summer camps and the youth activities. He frequently has a secretary--whom he shares with another departmental secretary! The problems are many and the solutions are not easy.

7. Philosophical and performance problems and needs

The crisis that is in process among the Roman Catholic schools possibly has lesser parallels among the Adventist schools. Figures have already been cited to indicate that enrollments among Adventist schools are generally holding steady though it is evident that the lower birthrate in this country is having its effect on the denominational schools even as it is among public schools. The problem that does cause one to wonder is the relative growth of the schools compared to the church membership. Since 1969 the school growth rate has not kept pace with membership growth (L3, 3).

There is some indication of a disenchantment with Christian education, similar to that mentioned by some Roman Catholic educators.[1] The growing materialistic thinking of people, no doubt, has seeped into the church also. Rising aspirations for luxuries, recreation and consumer goods have possibly upset the priorities of many people, including church members. As has been noted, only about half of the church members send their children to church-operated schools.

Mass media no doubt has made great inroads on the life styles of all, including the church member. Moral standards have eroded to the place that many fear for the life of the nation. The church has not been left untouched. Schools try to hold up what they consider standards of worth and yet control is difficult, enough so that the espirit de corps is disturbed, oft times. Many wonder if it is really worth all the effort and expense. Frequently comment is heard that there is really not that much difference between the public schools and the church-operated schools. It is very possible, if not probable, that this situation does exist, to a greater-or-lesser degree in many places.

As might be expected the church and its leaders are not unmindful of the problems. A Pacific Union Conference report gives the following:

> 1. We must find ways to help parents and other church members develop greater respect for, and profound belief in Christian education as an integral part of the great commission of the church.

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[1] The writer is not aware of any studies to verify this. However, observations over 20 years in the system give much room for concern.

> They should be able to see such a difference between the products of our schools and those of other schools that their confidence in Christian education will be firmly established. Thinking people the world over are searching for the best. Sanctified mediocrity is not going to attract them. Consecrated incompetence is not going to satisfy them. They will look elsewhere.
>
> 2. Church members need to be informed about our goals, our procedures, our accomplishments, as well as our problems.
> 3. Church members need to feel a proper sense of pride in the program, the quality of education, the buildings, and the surroundings.
> 4. The church as a whole needs to be involved in the process of education. People are interested in activities in which they have meaningful part.
> 5. The quest for excellence in Adventist education in the 70's demands teachers with strong professional, academic, and spiritual backgrounds.
>
> In short, in the 70's Adventist education must inspire as well as inform, build confidence as well as competence and ideals as well as ideas (P4, 6).

Generally speaking most objective educators would rate the Adventist philosophy of education as being noble, even if they were not supernaturalistic in their thinking. The aspirations and aims are high and comprehensive in coverage. As with so many schools and school systems the realities of life have curtailed the consumation of these aims and objectives in all too many situations. No doubt even the most positive and consecrated Adventist educators would agree that the goals have not been reached in all cases. Growth is needed, to say the least.

8. Pupil personnel and special education services

Generally the pupil personnel services are very, very meager within the Adventist school system. In some areas health services are available from the local public health office and in some instances a local public school district or region offers parochial schools such services, though there is some question as to the legality of this procedure. For all practical purposes the field of special education is non-existent within the Seventh-day Adventist school system.

Counseling and guidance services are available in some of the academies. Even here the post is not always held by a qualified professional and when it is, the individual must divide his time between guidance and teaching duties. Elementary schools are virtually devoid of any professional help along this line, other than that offered by the teacher, principal and local pastor. The latter should not be belittled, obviously, for a close relationship among teacher, pastor and the pupils is to be commended. Without doubt quite a case could be presented as to relative values between the above situation and a large impersonal school with professional guidance personnel who do not know the pupils personally. Nevertheless, whatever the values of the close relationship, many pupils need professional help of a nature not available from the typical teacher or pastor. Adventist schools generally do not offer this assistance.

Pupil accounting, social work and other phases of the field are cared for by the local school and church staff, such as it is. At times, as has been mentioned, liaison occurs between parochial schools and public schools. This is a gray area from a constitutional standpoint, though most would agree that cooperation should exist whenever feasible and legal.

Where handicapped children are concerned, little is offered within the Adventist schools. In many cases the marginal mentally retarded child is within the classroom with the other scholars, all too frequently to the detriment of both. In some situations those with various physical handicaps can be assisted within regular classes for the simple reason that empirical evidence indicates the typical parochial school teacher is generally dedicated to his work as a Christian worker and additionally the pupils are more tolerant, generally speaking, because of their backgrounds. However, no matter the dedication or tolerance, many pupils cannot be helped without specialized assistance from special education personnel. To the knowledge of the writer, such does not exist anywhere within North America, yet alone outside.

At this juncture in educational history, pupil personnel services and special education are much in the news. Parents are aware, in many cases, of these advances; thus the church must, if it is to keep abreast with the times, find methods of offering various services along these lines.

9. Administrative and financial services

Previously it has been stated that the Seventh-day Adventist church is probably more centralized in its organization than most of the Protestant denominations. Though there is considerable local autonomy, yet all financial records are audited by a higher body such as the union conference. Many institutions have internal auditors in addition. Certain percentages of the various offerings are disbursed to the various conferences, namely the local, union, division and general. Other funds are strictly local and are so expended, though again subject to audit.

Local churches, schools and other institutions have their own treasurers, business managers, controllers and similar officials. In the case of the larger institutions these are professional individuals while in the smaller they are frequently amateurs. Usually each church or school does its own accounting, processing orders, purchasing, etc. with little outside aid. Any business machines involved are generally those on the premises, though in some situations churches near colleges or hospitals that have computers utilize these units for their business procedures.

The Lake Union Conference, which is located adjacent to Andrews University, utilizes the university computer for various record processing procedures including the subscription list to the union organ, the Lake Union Herald. The Berrien Springs Village Church and the Pioneer Memorial Church utilize this computer also, thus the cooperative concept is found to some degree, particularly around larger institutions (P35). Similar situations exist in other places, however, it is not part of a total plan nor is it a general procedure.

The church operates three major publishing houses in the United States, each a virtually complete publishing and printing establishment for both books and periodicals. Additionally most of the colleges and many of the academies operate printing plants and do some publishing, though they operate more as instructional facilities and commercial concerns rather than religious units per se or as service facilities to the church. Church institutions may or may not utilize the services of the school printing plants for they are in the competitive market like any other plant. Because of this many churches and schools have their work done by various non-denominational publishers or local printers, a procedure up to question. Of course all official books and major periodicals are done by one of the three major houses (G8).

Local printing is often done on the church mimeograph or on the school spirit duplicator. Very typically the church will have a rather expensive mimeograph machine that is used for the church bulletin and possibly a few other items during the week. The total usage will be but a few hours weekly. At the chruch school operated by the church, possibly a few miles across town, they will have a rather inexpensive spirit duplicator being used every day by the teachers and principal and occasionally operated by a school secretary, though this position is rather rare. Seldom is there cooperative use of equipment such as printing units.

Quite typically each school, each church operates its own program. Where services are required, they are generally purchased unless a local member is able to assist. Without doubt much volunteer service is utilized, though generally there is little coordination among the various sub-organizations of the church. Overall it appears that talents and services are not utilized to their fullest.

These are but samples of what exists. In summation it is evident that there is a need for better coordination of administrative services.

10. Transportation

In most cases a coordinated transportation system is probably not of serious need inasmuch as most of the churches and affiliated institutions are so scattered. For the most part each school operates its own school bus fleet with occasional coordination with a neighboring school. Purchasing and maintenance are generally local, though insurance is frequently through the General Conference fleet policy.

Many of the local conferences operate their own moving vans while other conferences negotiate with other conferences for moving services, which are usually lower than commercial rates. The writer is not aware of any network for scheduling of vans through a central agency. The moving business within the Adventist denomination is considerable for pastors and teachers don't typically remain in one location for more than three to five years. It is thus that moving costs are a major outlay.

Again, van purchasing is a local concern and maintenance could hardly be otherwise, other than possible major overhauls. No coordinated program exists for the latter.

The Transportation Bureau of the General Conference acts as an agent for overseas travel though internal travel is not a general responsibility. Local institutions care for arrangements.

A weakness with the transportation program of the church that appears most amenable to cooperative action is in the purchase of busses and vans. Obviously, under general circumstances, a local school or conference could not obtain the price savings that could be gained by fleet purchases. Similar savings could be obtained via wholesale purchasing of tires, batteries, etc. To a limited degree this is being done in some areas. This will be noted later.

Another need is found in the transportation of pupils. Some schools can afford a bus while others cannot. In some instances the schools are close to each other, yet with each operating its own program there is little coordination of effort, other than that which occurs by gentlemen's agreements. Overall there is no master plan or school districting, thus each school is on its own. This problem is definitely part of a larger problem, namely that of a better school organization plan as a whole.

Still another facet of bussing is the better utilization of busses in the total program of the church, such as the bus ministry, week-end religious educational programs and pathfinder activities.

11. School districting, general organization and school boards

Local control is a factor of undoubted significance in the operation of schools. The decentralization movement noted in some of the larger cities and school districts gives indication of the need for a certain amount of local autonomy. On the otherhand the profound reduction in school districts within the last few decades also gives ample evidence for the need of increased efficiency, both administratively and curricularly. Both of these issues have been discussed to some extent earlier in this paper.

One of the basic problems in the Seventh-day Adventist school system is that there is no system of school districts. To some extent one does find voluntary "school districts" in some areas. In these situations several churches will cooperate in the operation of a school. The school board will have representation from the various churches involved. Most of the day academies are operated by area churches. The feeder schools may be independently operated or cooperatively, though seldom are the church schools and the day academy a part of one system, with coordinated activities. The conference superintendent attempts to coordinate where he can, however, in most situations he has little in policy to assist him in tight negotiations or general administration.

An example of the problem can be illustrated in the following situation. Gilroy and Hollister, two small cities in southern Santa Clara County in California operate a school with an enrollment of 21 in the elementary grades. Within the last decade it has had as high as 38 pupils. The two towns are about a half hour apart in driving time. To the southwest lies Salinas, about a half hour away. Less than a 30 minute drive to the west is Seaside and Monterey. For several years the latter two areas operated a union school till the Monterey-Seaside folks decided driving the youngsters by automobile to school in Salinas was too much trouble. The enrollment of the Salinas-Monterey Union School was 27 during its last year, with two teachers for the eight grades. The school in the Monterey area was reopened the following year with 14 pupils. The next year it was up to 38 and then dropped to 25. Salinas closed her school evidently because of a lack of interest, not because of a lack of potential pupils (P31; C32).

In about 1966 representatives of the four major areas just noted came together to discuss a possible union school to be located in the Prunedale area, a locale that would be a maximum of 30 minutes direct driving time from any one of the communities involved. Bus pickups about town would probably increase this time for pupils, of course. The writer was principal of the Salinas-Monterey Union School at this time, however he was not involved in the planning and no official minutes were made available, thus what transpired was hearsay. The outcome was nothing. Salinas, the largest town (population 50 000) in the area ceased operations. Monterey areas reopened but with an up and down enrollment (P31).

The above recitation no doubt could be repeated scores of times. The very lack of information to this writer is a problem in itself. Much of that discussed on such issues is difficult to obtain. Personnel that are directly involved are frequently not part of the overall program. In the smaller schools the lay school board not only establishes policy but all too often carries administrative functions leaving the principal but a figurehead. In many schools the school board has little idea of what is occurring at the school and yet legislates on items without ample information and usually without the educational acumen required. Local school personnel are up to the whims of local patrons and parents all too often and of course the school itself is up to local control to a great degree. The local whim problem is all too pervasive in church schools in general.

Though the church operated school faces financial problems, as all schools face, it is felt that much can be done to alleviate many of the problems by noting the weaknesses. The following factors are listed for consideration:

1. Too much local control by local churches, local lay school boards, local pressure groups, pressure by small cliques, etc.
2. Too much clerical control and conference administration that often is not cognizant of modern educational practices or for that matter aware of the significance of education as a whole or within the church organization.
3. Lack of professionally educated superintendents in many of the conferences, as well as the lack of viable consultants in various facets of the educational processes.
4. Lack of a master plan for education within the church (If such exists, other than philosophical viewpoints, this writer has not been able to obtain it).
5. Lack of a real school system approach to education. The total conference needs to be organized as a whole, it appears, rather than a collection of loosely organized schools, each more-or-less going its own way.
6. Lack of liaison between the elementary schools and the academies and between the academies and the colleges. There is much evidence to indicate the lack of coordination among the various levels of the educational program.
7. The general fragmentation of educational activity, as well as correlative programs of the church in its various departments.

12. Utilization and education of personnel

Education has played a very important part in the general program of the Seventh-day Adventist church from its early years. It is generally considered to have the largest international school system of any Protestant denomination, and second only to the Roman Catholic church in church operated systems. Within the United States it is second to the Lutherans, though in California it is larger.

A significant study indicated that Adventists as a whole are more highly educated than the national averages. Among the laboring classes they definitely are among the more highly skilled. These figures, among other factors, would indicate the values of the Adventist educational program (G15).

Yet with the emphasis upon education and the resultant increase of an educated laity as well as an ever increasing professionalization of the church worker staff, there are apparent weaknesses. As has been mentioned, there are situations where a conference has an educational superintendent who was not an educator at all but, most frequently, a minister. In many cases the superintendent of education is also the youth activities director as well as summer camp director. It would take quite a capable man to fill all positions with equal skill! The problem in addition to the minister not being an educator is that very few are professionally educated as youth workers and doubtless very few have even had a course in summer camp operation (P47; P49; R17, 2).

Similarly college administrators are generally without professional qualifications when it comes to the administration of higher education. Among the few places where professional administrators are staffing administrative positions is within the academies, and many of the larger elementary schools and junior academies. Some conference offices have business administrators who are professionally trained and many of the institutions such as publishing houses and hospitals have professional administrators, though even here there are cases of men who have no formal training.

Decisions on building construction, whether for the church or school, are usually made by people that have little or no formal trining within the field of facilities. In more recent years professional help has been sought in many instances, however (P22).

The situation that has been illustrated in several fields, can easily be carried into other fields. Basically it is one of too many people working within fields and holding posts for which they are not professionally qualified. It is very possible that the R.E.S.C. concept along with the concomitant intermediate reorganization (or installation) can help in this area.

A parallel problem is found in the fact that the church has many personnel, both among the denominationally employed and among the church's laity, who have skills and expertise in many fields of direct value to the church, and yet these people are not having their talents put to the fullest use. In a sense this is a waste resource. Frequently planning and decisions are being made by individuals who have but a general idea of what they are doing, and in some situations are plain ignorant of the field. All too often professionals in one field are caring out actions that belong to a different profession, yet professional help is available in many cases were it only known.

Let it be clear that this is not a tirade against this profession or that. Roles must be cast and professionals placed to fill those roles according to their expertise. The need is clear cut within the Seventh-day Adventist church and school system to allow professionals within each of the professions do that job for which he is best prepared, not only in experience, natural talent and desire, but in professional background and education. Additionally much talent is not being tapped, possibly because of a lack of sophisticated personnel information gathering instruments.

Another problem exists that has very definite connections to the quality of education within the church's school system. The church does teach, according to scripture, that to some is given the talent of preaching, to some evangelism, to some teaching, etc., however, when it comes to practice each minister is expected to be a "jack-of-all-trades," that is be a Greek scholar, preacher, evangelist, pastor, theologian, counselor and a host of other positions. The teacher in a similar way must be this-and-that and if one fails in any one of the areas, he has failed all around. Obviously this is an oversimplification, but in essence it is true all too often. This is an age of specialties and must be recognized as applying to the church also.

13. Professional education

Another area of need is found at the church school teacher's doorstep, as it were. In many portions of the country the teachers and administrators are very well qualified professionally, while in many other areas the situation is far from desirable. For instance 64 out of the 207 elementary teachers of the Atlantic Union Conference were teaching on provisional credentials, which is basically a lack of a college degree and certain professional courses. Several other areas have a similar predicament, such as the Columbia Union with 171 on provisional certificates out of a teacher force of 390. Other conferences have a lower percentage, such as the Pacific Union.

On the positive side, 96 out of the 725 church school teachers in the Pacific Union have the professional or life credential, which usually indicates a master's degree for the professional. 121 have the master's degree, though some lack certain professional requirements. On the other hand only six of the 125 church school teachers in the Canadian Union have master's degrees (G16, 5-6).

It is apparent that much growth must occur among the educator's of the church. In addition to the needed professional education and the increased sense of an espirit de corps there is little doubt but that the church's educators must grow in ethical awareness and a general sense of professional self-esteem. The church school system as a whole must achieve a new maturity and without doubt the educators themselves must lead the way. Without doubt much of the criticism that comes to the church schools and the teachers of these schools has a basis. The quality is frequently not up to par, thus there is a need for self-appraisal, as individual educators and as a group, looking at both the personnel and the program with its associated facets.

R.E.S.C. have frequently been in the vanguard in various in-service programs for improving the professionals within the region. This application might be studied.

14. Geographic distances and small populations

In a nutshell the church is operating a school system the size of which would equal that of one relatively moderate-sized city--about 80 000 pupils in K-12 (Kindergarten to grade 12). Yet this school system is scattered over all of the United States and Canada, as well as Bermuda. While the city school system would have a half dozen or less high schools, this system has over 80. Where the city system would have several dozen elementary and junior high schools, the denomination has almost 900.

The enrollments are quite varied. There are about 426 pupils in all of the denominational schools in Nevada and Utah. Even the State of California with the largest number of Adventists has but 14 626 pupils in K-8 and 6 337 in 9-12 out of a total population of about 20 000 000. Within California, as typical of many areas, the Adventist populations are very concentrated because of relatively large institutions, thus giving some generally strong schools in areas such as Lodi, Angwin, Mountain View, Loma Linda, Glendale, La Sierra and similar areas. Outside of these centers the schools are frequently small and lacking in many facets of a superior school (G16).

In many areas the pupils are so scattered that even where there are church schools, they are better than an hour drive from the school. When they are able to attend they will most likely be in a multiple grade classroom. For instance in Nebraska there is really but one school that would be rated as efficient in most respects and that is the school associated with Union College, located in the southeastern corner of Lincoln, a city of 150 000. The only other multiple-teacher school in the conference is located in Omaha. Other than these two, there are several one-room schools scattered about this 500 mile long state (G16, e).

Generally speaking there is but one secondary school within each state, though there may be several junior academies in larger conferences. This academy will typically have 150 to 200 pupils living at the boarding school. Only the largest of the conferences have more than one academy and some conferences have none. Most day academies are located about denominational institutions such as hospitals while the boarding academies are generally in rural locations.

Bussing and car pools are standard practice in day schools. Though practice generally dictates a maximum of one hour driving time to the school, many Adventist youngsters spend a longer period in transit. In many cases the transportation problem is resolved by local churches within the "district" of the academy or elementary school. Generally there is no standard practice in regard to transportation, but rather each school tries to solve the problem locally).

Another problem that is loaded with sociological implications is that of the dual conferences that exist east of the Rockies. As mentioned earlier, each state is generally a conference and several states comprise a union conference. A regional conference covers the entire area of the union conference and serves the black believers. In the West where race is not such an issue, such organization does not exist even though there are many basically all-negro (Black) churches in the West. Most of the larger cities have such.

From an educational standpoint it is difficult to justify a white school and a black school in the same city, each attempting to offer a quality program, yet usually not able to do that which might be possible if the two were working together, either as one single school or as a definite team, cooperating in interchange of teachers, certain facilities or services. In most cases the schools concerned are marginal or submarginal in quality as far as most typical criteria are concerned, though it is granted there are redeeming factors no matter what the general measuring instrument. Nevertheless, it is questionable to pursue a course that is educationally suspect when alternate routes might be taken to rectify many of the deficiencies. Again one cannot be unmindful of the sociological aspects, either within the denomination or because of the social milieu (P34).

Inasmuch as the total enrollment is scattered over several million square miles it is apparent that the typical R.E.S.C. unit cannot be replicated in the Adventist system. However, the reader no doubt, by this time, is beginning to see how the data of this paper does have many possible applications, though in modified programs covering larger regions.

15. Summary and comment

The problems facing the schools of the nation are formidable. Those issues facing church-operated institutions are similar, though probably of a greater degree in many situations. Additionally there are problems that are unique, or have an aspect that is unique.

Enrollments in Adventist schools have been holding steady, for the most part, though church membership is growing at a greater rate than school enrollments.

Finances are causing tremendous problems, especially being most Protestant schools, including those of the Seventh-day Adventist church, generally believe in the separation of church and state. This entails a policy of non-acceptance of government monies. Surprisingly Catholic schools who have accepted millions of dollars of government subsidies are in tighter straights than Protestant schools who have generally refused.

The small enrollments and sparsity of schools have brought on additional problems in offerings of academic material and courses. Many feel that a satisfactory program cannot be provided by such small schools. The facts of the case are that very few Adventist schools would qualify as being of sufficient size for a quality program, according to most criteria.

The influx of media has brought on much of the problem that exists in schools. Good as the "problem" may be, it costs much money, money that is difficult to obtain, especially in volunteer-type schools. Standards have been rising; demands are increasing. Instructional methods are utilizing more media. All-in-all it means a greater demand for media. Print media is weak in Adventist schools but audiovisual media is frequently all but lacking.

Though the Adventist church is more structured than most denominations, yet considerable local autonomy exists. There appears to be much duplication of effort on various levels of the church organization, thus there possibly needs to be more coordination of activity. Various avenues must be explored to better utilize the resources of the church, whether these be physical or with personnel.

A certain disenchantment or disinterest seems to exist in some quarters, just as some Catholic writers have observed of their schools. The differences between secular education and religious education are up to some question. Is it worth the cost? Is the academic product better? Is the pupil a better person for the education?

Private schools are lacking in many of the pupil services that exist in most of the public schools. Special education is generally lacking. Counseling and guidance have been generally very meager in their extent as far as formal professional fields are concerned. Account should be made of the closer pupil-teacher relationship which might offset the lack to some degree, however.

Business procedures are generally handled locally, often utilizing methods that are antiquated. Purchasing is frequently haphazard with little or no coordination of effort, thus putting the school at the mercy of the dealers. That sophisticated equipment available is frequently not utilized to the fullest. Business acumen is not wholly utilized, nor are professionals staffing those areas which could save dollars in all too many situations. Obviously the statements do not cover all situations, but it is a frequent lack.

There is a lack of districting in the school program. Efforts are not coordinated as they might be and in general it cannot be said that a Seventh-day Adventist system of education exists. Elementary, secondary and collegiate schools are each independently operated, for the most part. There is little correlation between the levels. Generally there is little cooperation among constituent churches, except where several churches operate a union school or cooperate in the Dorcas Society. At times there even appears to be competitiveness between churches and schools rather than a united effort.

Personnel problems are a factor in the school problem. It is relatively common to find non-educators operating the schools of the denomination, either on the local level or higher up the organizational ladder. Church school teachers have been virtually second-class citizens in some areas, though this situation is improving. The latter situation may be partially the fault of the educators in that professional ethics have not been considered sufficiently and the general professionalization of the group has not arrived at an adequate level.

The schools of the church are scattered about several million square miles and yet have an enrollment of about 80 000. In most cases there is but one secondary school of grades 9-12 in each state. Most of the elementary schools are multi-grade and thus the smallness and geographic scattering have not promoted quality to its fullest.

This chapter has not covered all the problems, nor has it gone into depth, but hopefully it has adequately given a base for a proper understanding of the place of the Seventh-day Adventist school in the United States. Though the problems are formidable, the following chapter will indicate many strengths. Some of these strengths are latent while others are potential. It is hoped that the recommendations of this paper will give indications of avenues for the solution of many of these needs via cooperative/regional programs. This study has possibly found at least partial solutions to most areas noted in this chapter. It is felt they are worthy of further investigation in any case.

CHAPTER 23

RESOURCES OF THE SEVENTH-DAY ADVENTIST CHURCH IN THE UNITED STATED

1. Introduction

Without doubt the Seventh-day Adventist denomination has many challenges facing it. Inasmuch as formal education comprises a major facet of its work, the schools similarly face many issues. Yet with all the needs and problems, the annual statistical reports indicate definite growth and overall progress. The organization is far from static. The trend is positive and even spectacular in some areas (G31).

Though the Adventist church is among the smaller Protestant denominations, it operates one of the most comprehensive educational programs in the world. In North America they operate 13 institutions of higher learning, over 80 four-year secondary schools and over 900 elementary schools. This program is being supported by less than half a million members within the territory. It is apparent that this operation represents a large investment in facilities and materials as well as personnel involved directly or indirectly in the educational program.

With rising costs, the increased utilization of media and a host of other elements, it has been observed that all over the United States there has been a movement to better utilize the resources of the schools. The cooperative/regional concept has been noted as a prime avenue of implementing improved utilization of resources and the offering of services not available on an individual basis. The reader has been able to observe that though the relatively full-service approach is a major avenue utilized, there are hundreds of specialized facilities. Over and over it has been noted that these facilities are designed for the needs of the region.

There must be an on-going appraisal of resources for how can a center be initially designed or maintain meaningful service if the needs are not acknowledged? In a similar vein how can services and materials be offered if the resources at hand are not inventoried. Obviously it would be blind planning. Communication must exist on all levels and in every avenue, otherwise efficiency is lost, duplications occur and the R.E.S.C. concept is lost.

Inasmuch as the basic readers of this paper are not well acquainted with the Adventist program, some time has been allotted to basic beliefs and educational philosophy in order to give meaning to the recommendations of this paper. Similarly the basic organization has been outlined for it is very apparent that most regional programs involve reorganization, particularly on the intermediate level.

This chapter will present some of the basic resources with which the R.E.S.C. might work. Such units do not arrive by fiat, thus the current resources must be recognized inasmuch as a large share of the regional center concept will involve the utilization of current resources and organizational structure in a more efficient manner. Not all the resources noted can be utilized, however, a majority of the church departments and institutions could very conceivably be involved, thus the presentation in this chapter.

2. General denominational resources in the United States

The Seventh-day Adventist church has a membership of over 475 000 in North America and a denominational investment in buildings and equipment of close to a billion dollars within that division. The world membership is about two and one third million with the North American division being the largest. The denomination has more invested in educational institutions in North America than in churches. The strong emphasis upon health is reflected in the $159 million invested in medical institutions in North America (G31, 2, 4).

The support of this program is free of government sustenance other than some direct community programs or research grants and possibly a few borderline areas. The denomination, as a whole, is generally opposed to government subsidies. In 1969 the membership in North America gave over $150 000 000 in tithes and offerings, which was a gain of 8.2 per cent over the previous year. It must be considered that a large portion of these offerings go for overseas missions for the total worldwide funds received amounted to about $195 000 000 which would mean North America gives about 3/4 of the funds though they comprise but 20 per cent of the membership (G31, 3). Those in North America give heavily for programs as evidenced by the per capita investment in properties and equipment of about 677 dollars on a worldwide basis, and of course for North America alone it would be considerably higher (G31, 2-4). Several specific types of institutions and services are mentioned here in that some of their characteristics and services may have potential for the educational program as it pertains to the cooperative/regional concept.

There are about 45 hospitals in the North American Division with a capacity of over 6 000 beds. Mental health and nutrition are emphasized in the programs. Physical therapy is another strong facet not commonly found in the typical hospital. These hospitals vary in size from less than 50 beds to well over 400 beds. About a fourth of these institutions are in California with the remainder scattered about the country with a heavier concentration in the South than most of the other areas (G36, 25).

Many of these hospitals and clinics are putting emphasis upon health education with some appointing directors in health education, audiovisuals, educational communications and similar fields. Some institutions have considerable outlays in television, movie productions such as in super 8 mm, and use of public relations personnel. Closed circuit television is found in some hospitals as well as cable radio to the patients. As might be expected each hospital has a chaplain's department that cares for spiritual needs as well as counseling and certain educational functions.

Educational programs include both inpatient as well as outpatient programs. Community programs, such as the stop-smoking programs (5-Day Plan), are also found in many of the units. Radio programs, dial services for those in distress through worry, alcoholism, etc. are found in some places (H20; R17).

Larger hospitals have computers and of course all of them have various types of business machines. Some are interconnected by Telex with other denominational institutions. Most of the larger units have their own laundry facilities as well as other facilities common to hospitals. Specialized services include geriatric and mental health units. A large proportion of the medical institutions have sanitarium sections for recuperative therapy as well as general medical and surgical care (P44).

The denomination operates 46 publishing houses about the globe with five of these being in North America. Kingsway Publishing House serves the Canadian needs and the Christian Record Benevolent Association of Lincoln, Nebraska serves the blind and hard of seeing. There are three major general publishing houses in the United States. These houses are virtually complete in their facilities for printing, binding, and associated production and dissemination activities.

Southern Publishing Association is located in Nashville, Tennessee. The Review and Herald Publishing Association is in Washington D.C. and the Pacific Press Publishing Association is in Mountain View, California.

Over 900 employees are involved in producing over $30 000 000 worth of publications. In addition to these publishing houses, many of the colleges and academies have printing presses that do both commercial work and church work. The publishing houses are utilized entirely for denominational purposes. Of course the school presses, as well as binderies, are established for a different purpose, namely to offer instruction and employment for pupils and students and hopefully to operate in the black in order to offset losses in other areas of the school.

The publishing houses mentioned above have cafeterias for employees, chapels, recreational facilities and other services. Typically larger educational institutions grow up about these establishments to serve the needs of the employees.

Chapel Records is located at Pacific Press in California and is the main religious recording outlet of the church, though the Voice of Prophecy issues labels under its aegis. The two establishments are about 400 miles apart. Faith for Today television has issued recordings in the past also and of course local groups have custom recordings made at local studios (P45; G31, 29).

Christian Record Benevolent Association not only publishes materials for the blind and hard of seeing but recently has worked with local conferences in the operation of summer camps for blind children.

The church operates several mass communications programs. The Voice of Prophecy is an international radio program based in Glendale, California. At this location they have studios, printing plant, general offices, correspondence Bible school and similar activities. The Faith for Today was located on Long Island, New York till 1972. It is a television program seen on hundreds of stations about the land. At their headquarters in New York they had similar facilities to the Voice of Prophecy, including a corespondence school. It is Written is a special purpose television program without the organization pattern of the former television and radio programs noted. They have utilized commercial production facilities for programming but the telecasting team is moved from area to area in association with evangelistic campaigns.

The Quiet Hour is Adventist but not denominationally controlled. It is an international radio program with similar facilities and services as the other programs, though not as extensive. The Quiet Hour as well as the Voice of Prophecy and Faith for Today publish booklets that are distributed to the listeners and viewers.

As of 1972 each of the denominationally controlled radio and television programs will be based in southern California where they will share production facilities. Faith for Today has moved its offices to Thousand Oaks, California, which is less than an hours drive to Glendale, location of the Voice of Prophecy. The Quiet Hour is located less than a two hour drive to the east at Redlands. The next chapter will discuss the merged facilities further (P46; H30, 22-23).

The Missionary Volunteer program of the church is a definite phase of the educational arm. This is the youth department and as such publishes materials for children and youth. It sponsors youth activity programs of all sorts, including the Pathfinders, a group similar to the Scouts.

In regard to facilities and furnishings the Missionary Volunteers generally utilize the local church and school for their meetings. The only facilities that might be considered as unique with the department are the summer camps. Over 200 camps are conducted annually, a large share of which are held on conference-owned campgrounds.

In some areas the camps are used year-round for various functions such as conference meetings, Bible Camps, rallies, winter sports, etc.

Some youth groups have their own busses, field-camp vehicles such as camping trailers for mass feeding, trucks for equipment and camper transportation, etc. Usually they have storage facilities for tents and other camping gear which one or more groups utilize (G6; P47).

Old-fashioned camp meetings are still held in some areas of the country while in other sections the logistics have become so complicated and local health and fire codes so strict that they have had to bow to modern life and have meetings in municipal auditoriums or similar facilities that might be owned by the conference. Central California still operates a large facility at Soquel near Santa Cruz. This site is used for other meetings during the year, though as an investment it is questionable because of its limited use. Rumors suggest a closing though many would mourn such a decision. Oregon also operates a separate camp ground at Gladstone. These facilities have large auditoriums, rest room facilities, cookhouses and similar facilities. Tents are used for auxilliary meetings and various divisions and age groups (P43).

Many camp meetings are held at boarding academies. In this way there is dual usage of many of the facilities. Grand Ledge is after this pattern, though extra buildings have been constructed primarily for camp meeting use. People may bring their own tents, as well as campers, trailers, etc. Of course the academy dormitories are pressed into use as well as the cafeterias (P43).

Another resource that should be noted is the conference van. These vans are used for moving purposes. Some conferences contract with another conference to do their hauling, or possibly utilize commercial sources. At times the conference has several trucks for general duty work that are pressed into various types of hauling. Occasionally a conference will own a bus though individual schools usually handle this type of equipment. Many conferences operate disaster vans or trucks. These may be mobile disaster units or trailer vans that are fully stocked ready to move at a moments notice. The conference tractor can hook on and be on its way shortly. Many situations could be cited as to the usefulness of these units in floods, hurricanes, tornadoes and other disasters. Though the church has much to learn in coordination, yet more than once Seventh-day Adventists have been in the vanguard of relief agencies and even have coordinated all groups present because of their organization. No doubt these are an asset.

The Seventh-day Adventist system of higher education has much in its favor, though it has been acknowledged that coordination has not been what it might have been. Recently action has been taken to remedy this. The next chapter will cover this progressive move.

In North America there are two universities, two junior colleges and nine colleges. Canadian Union College in western Canada has a small enrollment as does the Kingsway College, a junior college, which is located in eastern Ontario. Loma Linda University is comprised of two campuses, one at Loma Linda which is mainly medically oriented and the other at La Sierra which has liberal arts, pre-professional, and other programs of a non-medical nature. In northern California there is Pacific Union College, a five year collegiate institution. Walla Walla is a similar five-year school in Washington serving the Northwest. All three of the western institutions offer masters work in one field or another.

Southwestern Union College is the newest of the senior colleges of the church in North America and is located in Texas. Union College serves the upper Midwest and is a four year college. Southern Missionary College in southern Tennessee serves the South and offers a senior college program. Oakwood College in Alabama is primarily for the black students, though negro students are found on all the other campuses also.

Atlantic Union College is a senior college serving New England and Columbia Union College serves the middle-Atlantic states. Kettering College of Medical Arts is a junior college in Ohio and caters primarily to non-graduate level medical arts.

Most of the schools of nursing are now collegiate, though there are a few hospitals offering the three-year nursing program. Colleges offering nursing cooperate with a hospital in the offering of the program. Similar agreements exist in medical technology (S23).

Welfare depots are on each coast. They assemble relief supplies such as clothing, shoes etc. Local Dorcas Societies collect the materials and supply some to local users and send other items to the depots for overseas use or to the conference for use in disaster vans. Many churches now have regular welfare offices with work rooms for the ladies to use in mending, gathering, repairing, etc. Kitchens

TABLE XXIV

SEVENTH-DAY ADVENTIST COLLEGES AND UNIVERSITIES IN NORTH AMERICA 1973-1974 SCHOOL YEAR

Institution	Location	Enrollment
Andrews University	Michigan	2 276
Atlantic Union College	Massachusetts	674
Canadian Union College	Alberta	98
Columbia Union College	Washington D.C.	826
Kettering Col. of Med. Arts	Ohio	334
Kingsway College	Ontario	31
Loma Linda University	California	3 924
Oakwood College	Alabama	987
Pacific Union College	California	2 108
Southern Missionary College	Tennessee	1 555
Southwestern Union College	Texas	616
Union College	Nebraska	754
Walla Walla College	Washington	1 835
	Total	16 018

(G4, 3).

provide meals for the workers and in some instances may provide meals for those in need. Some of these units are in the poor section of town while others are adjacent to the church. The Berrien Springs, Michigan center is operated by two churches and covers several thousand square feet of planned facility in a semi-rural area. On the other hand the center in Omaha, Nebraska is in a rented store building in a poor section of the city (P48).

One other type of facility should be mentioned, though it is the most obvious, namely the approximately 80 academies and 900 elementary schools about the nation. These range in size from one-room schools in the basement of the church to large 500 pupil academies with modern facilities or the elementary school that is as nice as any in the city. Without doubt, however, the majority of Adventist schools would not be rated as optimum in size or in facilities. Fortunately size is not the only criterion of quality, or these schools would have little foundation upon which to stand (G14; G9).

3. Status and resources in the Lake Union with emphasis upon Michigan

In recapitulation, the Lake Union is comprised of the states of Wisconsin, Illinois, Indiana and Michigan--each one an individual local conference. The Lake Regional Conference covers the territory of the union and carries on the work among the black peoples. The Lake Union conference officers are biracial, thus giving somewhat of a unity to the union. The four state-wide local conferences work with all other groups, though many local churches are omni-racial in make-up. Where there are a large number of any racial or color stock, a national church is frequently established. For instance in Chicago there are several national churches such as the Italian, Spanish, Oriental, Polish, German, Slavic, Czech, Korean and Negro (G21, 55-56).

There are almost 450 churches within the union with a combined membership of about 45 000. The 76 churches of the Illinois Conference have a membership of about 7 500. Indiana has 76 churches with a membership of approximately 5 500. Wisconsin has over 5 500 members in 83 churches. Michigan's 160 churches have about 20 000 members and the Lake Region has 50 churches with about 8 000 church members (G31, 6).

The Lake Union operates nine academies (high schools) within its boundaries. Five of these are primarily boarding schools and four basically day academies. Enrollments hit a high of 1 914 during the 1967-1968 school year and dropped to 1 787 during the 1973-1974 school year, though enrollments have varied somewhat during the last decade (L3, 6).

It will be noted that all of these secondary schools are relatively small, with none of them measuring up to the minimum as noted by Conant, namely a graduating class of 100 (C65, 77). The defense of these schools is not the purpose of this paper, however, it can be safely stated, parenthetically, that these schools have done an admirable job, even though they may not measure up on all critique scales.

All these academies are within 200 (322 KM) miles of Berrien Springs, Michigan, which is the headquarters of the union conference. Andrews University and the Lake Union Conference office are located in this small town of southwestern Michigan, near the lower tip of

TABLE XXV

ENROLLMENTS OF LAKE UNION CONFERENCE ACADEMIES IN 1973-1974

Academy		Enrollment
Adelphian *	Holly, Michigan (Southeastern)	235
Andrews (10-12)	Berrien Springs, Mich. (Southwestern)	290
Battle Creek	Battle Creek, Mich. (South Central)	120
Broadview *	La Fox, Illinois (Chicago area)	211
Cedar Lake *	Cedar Lake, Mich. (Central, lower peninsula)	287
Grand Ledge	Grand Ledge, Mich. (South central)	99
Indiana *	Cicero, Indiana (Central)	171
Shiloh	Chicago, Illinois (Negro)	107
Wisconsin *	Columbus, Wisconsin (Southeast)	267
* Boarding academies	Total	1 787

(L3, 6; G31, 22)

Lake Michigan. All of the academies can be reached within a three to four hour drive by automobile, with the majority being considerably less.

Approximately half of the membership of the Lake Union and half of the pupils of the Union are within the state of Michigan and the vast majority of these are in the lower 150 miles bordering the Indiana-Ohio line. Thus the bulk of the membership and school enrollment are within a three hour drive of Berrien Springs and a good portion of these are closer yet. A large portion of Illinois' membership and enrollment is in the Greater Chicago area, which is within a two hour drive of Berrien Springs (G31, 6).

There are 116 elementary schools and junior academies with an enrollment of 5 565 in the Lake Union. As mentioned about half of these are in Michigan, namely 2 680, with the other conferences all enrolling less than 1 000 each. It should be noted that the Lake Region Conference has 890 with a large number of these in Chicago, thus giving over 1 000 in Illinois (L3, 4).

TABLE XXVI

STATISTICS OF LAKE UNION SCHOOLS K-10,
1973-1974

Conference	No. of teachers	No. of schools	Enrollment
Illinois	57	25	919
Indiana	47	19	568
Lake Region	60	7	890
Michigan	174	52	2 680
Wisconsin	43	20	508
	381	125	5 565

(L3, 4; C45, 15-16)

The above figures yield an average of about 52 pupils per school. None of the schools in Wisconsin measure up to the widely noted criteria mentioned earlier in this paper, that is, one teacher per grade. Two schools in Illinois basically would qualify, both in Greater Chicago. Three of the seven schools of the Lake Region would measure up to the criteria, while but one might qualify in Indiana. Five schools in Michigan would reach the criteria with two of these being in Berrien Springs. The other two are in Battle Creek, a historical Adventist center and the other in a Detroit suburb, the largest city in the state. This would give a total of 10 schools out of 117, that might be rated adequate.

Among the resources of the Lake Union one should mention the Hinsdale Sanitarium and Hospital located in a western suburb of Chicago, Illinois. When present construction is completed this hospital will have a bed capacity of 440. This is the only hospital currently operated directly by the Lake Union.[1] Battle Creek Sanitarium in Battle Creek, Michigan is operated by Seventh-day Adventists and has a board composed of major denominational leaders, but is not directly operated by the church. As of this writing negotiations are in process to give the denomination a chain of seven nursing homes in Wisconsin with a bed capacity of close to a thousand (A55, 24-31).

As mentioned previously most campmeeting grounds are located at boarding academies and such is the case with Michigan, Indiana and Illinois. Additionally Michigan has campmeetings in the upper peninsula and Illinois has a campground at Little Grassy Lake which serves the southern portion of the state. It is also used for youth camps. The Lake Region conference has grounds which serve as campmeeting facilities as well as youth camp facilities at Cassopolis, Michigan, which is about 20 or so miles east of Berrien Springs. Wisconsin has a separate camp meeting location at Portage while their boarding academy is at Columbus, both in the lower central portion of the state (G42).

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[1] Battle Creek Sanitarium was turned over to the church in 1974.

Missionary Volunteer (M.V.) Camps are located in each of the conferences. Though some are utilized as summer camps only, others have been winterized and are used on a year-round basis. Uses include Bible camps, colporteur rallies, faculty retreats, Pathfinder outings, family groups and ministerial meetings.

TABLE XXVII

LAKE UNION CAMPS AND THEIR LOCATIONS

Name of camp	Area of state	Geographical location
Little Grassy Lake	southern	Makanda, Illinois
Timber Ridge Camp	southeast central	Spencer, Indiana
Camp Valkyrie (Lake Region)	southeast	Cassopolis, Michigan
Camp Au Sable	northern lower peninsula	Grayling, Michigan
Scott Lake Camp	southeastern	Bloomingdale, Michigan
Upper Peninsula	northern	Sagola, Michigan
Camp Wahdoon	northwest	Chetek, Wisconsin

(G32; G38)

Typically the M.V. Camp has a lodge building, possible shelters, cabins for campers, kitchen facilities, bathing facilities, sanitation facilities, shops, facilities for teaching crafts and nature activities, corral and possible boating equipment. The sophistication of each camp obviously varies with some suited for roughing it during warm months only while others are equipped for year-round utilization and may have paved roads, hot and cold running water and other conveniences (P47).

Each of the conferences has a conference office located in a central portion of the conference. The more populous conferences have a separate professional for each of the basic departments of the church, such as Sabbath School, Education, Youth Activities (Missionary Volunteers), Lay Activities (sometimes referred to as Home Missionary), Publishing, and Book and Bible House (G8; G32).

The conference office is a physical facility with offices, duplicating equipment, storage, committee rooms, and similar facilities. Some of the newer units are multi-storied and possess many service amenities.

In each conference office there is located a Book and Bible House for the sale of Christian media. In addition, Michigan, the largest of the Lake Union Conferences has a branch in Berrien Springs, Michigan. These stores are retail establishments but in addition they have a mail order service. These centers are the agencies of the church publishing houses. They also handle the Chapel recordings, which are published by the denomination. Other publications from non-denominational publishers are also stocked. In Michigan the Sabbath School Department retails a large selection of teaching aids for the Sabbath School, the weekend church school (G5, 307-314).

TABLE XXVIII

CONFERENCE OFFICES OF THE LAKE UNION

Conference	Area of the state	Geographical location
Lake Union	southwestern Michigan, center of the Union	Berrien Springs, Michigan
Illinois	northeastern, Greater Chicago area	Brookfield, Illinois
Indiana	central, state capital	Indianapolis, Indiana
Lake Region	center of the union	Chicago, Illinois
Michigan	center of lower peninsula, state capital	Lansing, Michigan
Wisconsin	lower center, state capital	Madison, Wisconsin

(G32)

The two largest institutions of the church within the Lake Union are the Hinsdale Sanitarium and Hospital in Hinsdale, a suburb of Chicago and Andrews University and its associated facilities. The latter is the larger of the two investments and in addition has the largest concentration of Adventists in the Midwest. There are over 5 000 members within a 30 minute drive of the university (M27).

There are about 2 300 students enrolled at Andrews University of which approximately 300 are seminary students and 300 graduate students (G46, 3). The college primarily serves the Lake Union while the seminary and graduate school are international in scope and are supported basically by the General Conference of Seventh-day Adventists. Over 60 different countries are represented at any one time on campus and in addition virtually every state in the union. Though the school is relatively small, it is one of the most cosmopolitan campuses in the United States.

The Department of Education, which encompasses the professional education personnel, has over a dozen full-time professors as well as many part-time teachers and methods teachers who are practicing teachers. These professors, as well as other faculty on campus, comprise a vast resource to assist not only students on campus but their colleagues about the various conferences who are on duty in various schools. For the most part this storehouse has not been tapped. It is very possible that both the in-service teachers in the field and the professors might benefit by more utilization of their talents. There are well over 200 faculty members that might have influence in a sphere well beyond their own classrooms. Obviously it should not be inferred that these personnel have contributed nothing to the community, but rather that their potential has not been utilized as it might be (A24; A31).

Within the Department of Education a research laboratory is being developed which currently includes some rather sophisticated calculating equipment for use in statistical studies. A Reading Laboratory also is avilable with various types of reading devices, books and personnel to assist in their use. A speech therapy unit with appropriate equipment and personnel is in the same building. A counseling center also functions within a newly remodeled facility including rooms for individual and group counseling. Testing services are available to students of the university as well as professional personnel to assist in all phases of counseling and guidance. As might be expected these services are offered with the cooperation of various departments of the university. To a limited extent the various educational services are available to non-university persons, though without doubt their application has not been very extensive because of funding, personnel and possibly vision.

The university has a rather sophisticated computer and professional and technical personnel for its operation. Additionally they have a terminal for a more advanced commercially owned unit. Though the computer is primarily for university business and academic usage, it does service the campus Pioneer Memorial church, the Lake Union Conference office down the street, as well as some other groups.

The Ellen G. White Estate has offices in the Seminary building. Though the main office is in Washington D.C. and the main collection of documents is there, a secondary collection is provided for the seminary students inasmuch as Andrews University is the primary graduate seminary within the denomination. Vault facilities are available for all serious students, thus the office serves the field as a whole.

The James White Memorial Library has a collection of almost a third million volumes as well as close to 2 000 periodical subscriptions. The religion collection is consideration to be outstanding among seminaries. The Heritage Room contains much material of both denominational history importance and local Michigan historical value.

Microfiche, ultrafiche and microfilm are finding more and more applications within the library with two major collections being commenced in 1972 (A25).

Though the library is provided primarily for the university, community persons may utilize the facilities upon payment of an annual fee of five dollars,[1] which undoubtedly is very modest in cost. In addition the academy has a library as does the elementary and junior high school, the latter being a joint venture. Audiovisuals are being utilized to a great degree in the elementary and junior high schools, very possibly the most ambitious of all campus schools. The Music Department has a specialized library of books, scores and recordings as well as a professional librarian to care for the facilities. Various other departments have special collections of books and various audiovisual aids.

A serious drawback, it is felt, is the lack of coordination of acquisition procedures as well as the dissemination of information. Without doubt much material is not being fully utilized, duplication of materials occurs and where a duplication is needed, items are purchased at rates higher than is necessary inasmuch as there is no real centralized purchasing agency.

A computerized input bank of materials in the audiovisual section of the Teaching Materials Center as well as in the Music Materials Center is in its infancy. At this juncture it is hoped that eventually various departments might cooperate in the production of a union catalog for campus holdings and eventually extend it to other schools. As it is most people do not know what is available about campus.

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[1] Since boosted to fifteen dollars.

The Audiovisual Center is located in the Education Building, Bell Hall. The facility serves as the service office in audiovisuals for the university. Production equipment is located here, which includes dark room, copy cameras, enlargers, duplicators, electronic stencil cutter, various copy machines, audio equipment and similar production items. Laboratory facilities for audiovisual media classes are located at the center.

An instructional television facility is being developed, though at this time the television equipment is scattered about the campus. The audiovisual department is only about four years of age, thus much coordination still needs to occur.

One other major resource is radio station WAUS-FM, a 17 000 watt fine arts station operated by the University. This station has a potential audience running into the millions. Programming includes many educational and public service programs, as well as a portion devoted to religious broadcasting. A small powered station is also provided on campus that is geared primarily to student needs and instruction. These facilities are entirely separate from the audiovisual center (A24; A21).

The Teaching Materials Center, which is located in the main library, has been developed primarily as a center for student teachers and secondarily for in-service teachers. In practice it is developing into a learning materials center inasmuch as such facilities do not exist on campus. The T.M.C., as it is known, has close to 10 000 books in its collection, which includes texts, children's and adolescent literature books and practical professional books. Approximately 8 500 audiovisual items are in the collection such as slide sets, filmstrips, cassettes, tapes and various teaching devices. Files of various types are located in the T.M.C., such as story files, transparency files, curriculum guides, professional pamphlets, standardized tests, bulletins, media catalogs, pictures etc. One or more professionals are on duty to assist the patrons with their needs.

The university has set aside a large budget for print materials, thus giving the school an exceptional library for a rather small university. Expenditures for audiovisual items has been very minimal, possibly because of a time lag in recognizing the value of these items. No doubt a considerable amount of material would be found about campus were an inventory taken and to some degree the accreditating reports have noted such (A24; A33).

Many educators have commented on the need within the Lake Union Confernence for more cooperative action, for the need of better utilization of audiovisual media, for pool purchasing arrangements and similar programs. Several have commented to the effect that Andrews University would have to lead the way in any regional or cooperative programs. Without doubt the University is looked to as a leader in various educational programs.

4. Status and resources in the Central and Northern California Conferences

The two conferences comprising the northern portion of California have a total membership of approximately 42 000. The geographic area encompassed extends from the Tehachipi Mountains on the south to the Oregon border on the North and the crest of the Sierra Nevada and Cascade Mountains to the east. The vast majority of this membership, as well as the population in general, is found in the Central Valley, the coastal vallies and the Bay Area (G20; G31, 6).

The Central California Conference has its headquarters in San Jose, California. Though the facility is modern and commodious, there appears little room for any expansion. The office is somewhat centrally located in regard to membership, though geographically it is in the northwest portion of the conference territory. San Francisco, the northern-most portion of the conference is about an hour drive on freeway from San Jose while Bakersfield way to the south is a five or six hour drive. Churches and schools to the east are about a two hour or so drive into the Sierra Nevada foothills. There are virtually no churches or schools to the west inasmuch as the Pacific Ocean is close by.

The Central California Conference has 89 churches and about 18 000 members within its boundaries. Virtually all churches and schools are interconnected by freeways or very closely situated to such. Air commuter service is available from San Jose to the Los Angeles area at rates comparable to bus transport though commute time via plane is less than one hour. All major Adventist centers are within relatively easy driving distances with no seasonal problems of any magnitude such as those faced in snow areas.

Rather large concentrations of Adventists are found in the upper Santa Clara County area about Mountain View, in the Modesto-Turlock area, Fresno and Bakersfield. These areas are in a generally linear driving route in the order listed, each about an hour and a half to a two hour drive apart. Each of the areas listed has a full day academy and elementary school. A smaller Adventist center with a full secondary school and elementary school is found at Armona, to the southwest of Fresno. A boarding academy with no day pupils is located near Watsonville, which is about an hour drive south of the conference office, on the coast.

Junior academies, which include elementary schools in each case, with grades nine or nine and ten, are found in San Francisco, about an hour drive north of San Jose; Sonora, about two hours east of San Jose and located in the Sierra foothills; Sierra View, about four hours drive to the southeast; Dinuba, about four hours south; Valley View, about four to five hours to the south on the coast and VHM in Santa Cruz, about an hour to the south on the coast (G9).

It should be noted that these junior academies enroll considerably less than one hundred in each school in the ninth and tenth grades. Several dozen would be closer to the average size (G9, 6-7). Without doubt these schools are marginal or submarginal according to such criteria as Conants report (C66).

There are 28 elementary schools in the conference enrolling close to 2 500 pupils in kindergarten through eight. 128 teachers are employed within these schools with an average experience of 11.5 years, thus giving some maturity to the program. The distribution of these schools is such that very few pupils are further than an hours drive to a church operated elementary school. Similarly most pupils are within an hours drive of a secondary school (G10).

It should be made clear, however, that many pupils are not within convenient commuting distances to four year secondary schools, thus many areas have instituted the junior academy which contains grades nine or nine and ten. Typically pupils then go to a boarding academy for the last two years, which in the case of Central California Conference, is located near Watsonville on the ocean front. Monterey Bay Academy, which is strictly a boarding school, had an enrollment of 436 as of the 1973-1974 school year (G9).

Population and membership configurations are entirely different than the problems in the Lake Union. The vast majority of both categories are in the valley areas and foothills with very, very few in the mountains above 4 000 foot elevation. There are only three population areas within the conference on the coast, namely San Francisco, the Moneterey Bay area and the San Luis Obispo area. In the case of the Central California conference the Salinas and Santa Clara Vallies are the only coastal vallies with churches and schools and these are within one hour of San Jose with San Jose being at the mouth of the Santa Clara Valley. The preponderance of membership is within the areas mentioned (P30).

The Northern California Conference has a membership of approximately 24 000. While the west side of the San Francisco Bay is in the Central California Conference, the east side of the bay, as well as the area north of the Golden Gate, is in the Northern California Conference. The Livermore Valley, a smaller coastal valley, as well as Tracy and Manteca are in this conference. Modesto and south are in Central (G31, 6; G20, 61, 64).

Similar population and membership configurations hold for the northern portion as in the central portion of the state, namely the majority live in vallies and foothill areas, as well as in the San Francisco Bay area. The only coastal places of any importance are in the Eureka area and Crescent City, both in the northern Redwood Empire sector. Major Adventist areas are found in the East Bay suburbs, the Howell Mountain area and Napa Valley where the St. Helena Sanitarium and Hospital as well as Pacific Union College are located, Lodi, Sacramento and Paradise in the foothills of the northern Sierras. Most of the Sacramento Valley towns and cities have rather sizeable Adventist churches and schools. The hour driving time to elementary schools would hold for most of the Northern California conference.

Day academies are located in Oakland, which serves the East Bay; Lodi serving Lodi and Stockton; Sacramento serving the Greater Sacramento area and Pacific Union College Preparatory School serving Angwin, the sanitarium area and St. Helena. A boarding academy is located at Healdsburg, about a two hour drive north of San Francisco.

Rio Linda does not have any day pupils and had an enrollment of 367 in 1973-1974.

A junior academy is located in Redding at the north end of the large Sacramento Valley which is about a four hour or so drive from Pleasant Hill, the conference office, which, in turn, is about an hour east of San Francisco or less yet from Oakland, the largest city of the conference. Paradise, Auburn and Placerville, all Sierra Nevada Mountain foothill towns, have junior academies scattered along the western slope and about four hour, three hour and two hour drives, respectively, from the conference office. Junior academies are located in the Napa Valley and also at Santa Rosa in the Cotati Valley, coast vallies on the north end of the San Francisco Bay area. Less than an hour north of Rio Linda Academy there is a junior academy at Ukiah in another coastal valley. The junior academy at Yuba City is about an hour drive north of Sacramento in the Sacramento Valley (G44, 6, 7; P63).

There were 3 290 in the elementary schools and junior academies of the Northern California Conference during the 1973-1974 school year. These ranged from one-room schools with seven pupils to 277 pupils and ten teachers and principal. Of the 46 schools, eight are one-teacher schools, 17 are two-teacher schools, and one is a three-teacher school. Twenty of the schools have one or two grades per classroom, many of which also offer the ninth or ninth and tenth grades. Ten of these have between 100 and 200 pupils in K-10, while four have between 200 and 300. Fourteen of the schools have basically full-time principals, while the others have teacher-principals (N38).

As can be noted in comparing a listing of Adventist schools with an atlas, all communities of any size within the state are either served by an elementary school or are within relatively easy commuting distances. In a few locations there are church schools that are actually close enough together so that certain rivalries exist, at times to the discredit of one or another of the schools and churches involved. School districts as such do not generally exist in practice thus the stronger school tends to draw those pupils that can attend for this reason or that and contrawise the weaker school tends to get weaker and able to hold only the less desirable pupils. Obviously certain drawbacks are existent in this structure, including a lack of efficiency in administration and instruction, let alone the morale factor of pupils and staff.

In the northern portion of the state, there are eleven full secondary schools, two of which are full boarding schools with no day pupils. One is at Watsonville and serving the Central California Conference and the other near Healdsburg and serving the Northern California Conference. Day academies number five in Central and four in Northern.

Each of the academies has a basic library collection, though they are all considerably below 10 000 volumes with many being marginal as far as media standards are concerned (G16, s22). The college preparatory school is adjacent to the Pacific Union College library thus giving it access to over 80 000 volumes (G16, 7). Audiovisual media is developing though few have begun to reach the standards published by the A.L.A.-N.E.A. (American Library Association and the National Education Association).

TABLE XXIX

ACADEMIES IN NORTHERN AND CENTRAL CALIFORNIA CONFERENCES WITH LOCATION AND ENROLLMENTS IN 1973-1974

Academy	Location	Enrollment
Armona Union Academy	Armona	73
Bakersfield Union Academy	Bakersfield	100
Fresno Union Academy	Fresno	136
Golden Gate Academy	Oakland	86
Lodi Union Academy	Lodi	146
Modesto Union Academy	Modesto	174
Monterey Bay Academy *	Watsonville	436
Mountain View Union Academy	Mountain View	263
Pacific Union College Preparatory School	Angwin	205
Rio Linda Academy *	Healdsburg	367
Sacramento Union Academy	Carmichael	197
	Total	2 183

(1 182 in Central, 1 001 in Northern California) (G9, 6)

* Boarding Academies

The Pacific Press Publishing Association is located in Mountain View, about an hours drive south of San Francisco. This facility has been mentioned previously as being a complete publishing, printing and binding establishment. Aside from the technical equipment, the Press has volleyball and tennis courts for use of employees. A recreation hall is available which is equipped with a kitchen. An auditorium is also located at this institution which is used for both religious services of employees as well as lyceum programs and similar entertainment. Some employee housing is available as well as warehousing.

On the grounds of Monterey Bay Academy near Watsonville on the Monterey Bay are found the western offices and warehouse for SAWS, the Adventist relief organization. This facility collects and ships various types of relief supplies primarily to the Pacific basin while the eastern office serves the Atlantic basin. In addition to the hired employees, many volunteers come in to assist with the activities.

ESDA Sales and Service has its western office in downtown San Francisco. The Transportation Bureau also has its office at the same location. ESDA is a type of pool purchasing organization that caters primarily to overseas institutions. Missionaries and others in church work have materials shipped from this office where facilities exist for packing and crating for overseas shipment.

Many of the churches in California, as well as in other parts of the country, have Dorcas Welfare depots and work rooms. Some of these are at the church while others are in separate buildings near the church or in other parts of town. These are usually staffed by volunteers though there is a conference secretary, the Home Missionary or Lay Activities Secretary, who oversees the overall program. These groups not only carry on their local welfare programs but cooperate with SAWS in international relief programs. Some local churches have mobile units and many of the conferences have mobile vans for disaster service (P30).

There are four hospitals operated by the church and several other clinics and hospitals operated by individual Adventists or groups of physicians. In the Central California Conference there is a hospital in the lower San Joaquin Valley at Hanford and another in the Sierra Nevada foothills at Sonora. Northern California Conference has one in the Napa Valley outside of St. Helena and another at Paradise on the mountain slopes of the Feather River Canyon in the northern Sierra Nevada mountain range. Major private Adventist medical facilities are found in San Jose, Modesto, Sacramento and Bakersfield, though these are not controlled by the denomination.

For the most part these hospitals are like any other hospitals, that is they have various ancilliary services and departments that might have facilities of use in inter-institutional cooperation. Most Adventist hospitals have chaplain's offices, chapels and various types of community programs with associated facilities and equipment. These are usually of a health education nature though many, if not all, have spiritual overtones (P30).

Both the Northern and Central California Conference operate summer camps, which actually are year-round camps for all ages, though

TABLE XXX

HOSPITALS IN THE NORTHERN AND CENTRAL CALIFORNIA CONFERENCES WITH LOCATIONS AND BED CAPACITIES

Hospital	Location	Bed Capacity
Feather River Hospital	Paradise	148
Hanford Community Hospital	Hanford	51
Sonora Community Hospital	Sonora	42
St. Helena Adventist Hospital	Deer Park (Sanitarium)	243

(G31, 25)

initially built as summer youth camps. Aside from the two camps that each conference operates, there are several other camps held each year in rented quarters to care for the needs of certain regions that are some distance from either Pinecrest or Wawona.

Pinecrest is located west of Lake Tahoe near Echo Summit in the High Sierra. Wawona is located in the southern portion of Yosemite National Park and serves the Central California Conference while Pinecrest serves Northern California. Both camps are winterized and have lodge facilities, kitchens, messes, cabins, campfire circles, and various recreational facilities such as pools, horseback riding facilities, courts, nature centers, etc. The use of each is so extensive that reservations usually have to be made up to a year ahead of actual usage. Specialized facilities and equipment include rock and mineral shops, zoo and museum facilities, medical center, indian villages, and of course such things as sewage disposal systems, water wells and tanks and similar equipment for these units that are located in far off locations. Full-time caretakers are on duty at these camps, not only acting as caretakers and maintenance men but as guides and instructors to the youth and patrons (P47; G37, 83).

Generally speaking the outdoor education and school camping possibilities have not been utilized as they might, though the church operated Pathfinder program does, to some extent, care for this function inasmuch as the Pathfinders and the church school pupils are one and the same and frequently the Pathfinder leaders are one and the same as the school teacher! In any case there usually is close cooperation between the groups.

Pacific Union College serves the college needs of the two conferences in question while the La Sierra Campus of Loma Linda University basically serves the southern portion of the State of California. Pacific Union College has an enrollment of about 2 000, most of whom are undergraduates though there is a graduate program through the masters level with emphasis being in professional education. The professional staff numbers 157 (G14, 3; G16, 7).

The college is located about 70 miles northeast of San Francisco at an elevation of 1 600 feet in the coastal mountains, about eight miles east of St. Helena in the Napa Valley. Freeway connections are about 30 miles from the college, via mountain road and two way valley roads. Though not as convenient as some Adventist colleges, it does offer much in natural beauty and quietness that is conducive to study. From the standpoint of this report it does offer some disadvantages because of its relative remoteness. The community of Adventists about P.U.C., both on Howell Mountain, at the St. Helena Adventist Hospital down the mountain about five miles and in the Napa Valley itself, nuumbers into several thousands. It is thus that it has an important position to fill, not only as a collegiate institution for the international student body, but for local residents also. As has been mentioned, the bulk of the students come from the northern half of the state, thus it serves the area under study very directly in many ways, though the potential possibly hasn't been tapped fully.

The college has several facets that have definite possibilities to northern California. The library has about 80 000 volumes in addition to periodicals, slides and some other audiovisuals. Recently the audiovisual department has had a full-time professional audiovisual specialist put at its head. A curriculum laboratory is located in the education building which has professional materials, mostly of a print nature as well as a do-it-yourself production laboratory. A computer and linear accelerator are located at P.U.C. as well as similar technical equipment. Inasmuch as the campus, all told, covers over 2 000 (ca. 500 hectares) acres, there are many agricultural and floricultural materials and facilities available. Several telescopes are on campus, including a rather large unit. Especially strong departments at Pacific Union College are found in music, religion and education.

The campus and its associated facilities basically are the town of Angwin in this coastal mountain community. Most residents are either connected with the college or have moved there because of the environment and educational privileges of the elementary and secondary schools on campus.

Five (8 Km) miles down the mountain is found the Foothills School with 127 elementary pupils. The college elementary school has 159 pupils, while the academy has 228. Napa Junior Academy, which is at the lower end of the Napa Valley, about 30 (48 Km) miles from P.U.C., has 274 pupils in ten grades (N38; G9, 11). Few would argue that the educational program within this area is strong, thus the colonizing of many Adventists in this territory.

5. Status and resources in the Central Union Conference of the Midwest

The Central Union Conference of Seventh-day Adventists is comprised of the following local conferences: Nebraska, Missouri, Wyoming, Kansas and Colorado. In addition there is the negro conference known as the Central States Regional Conference which covers all the above named states and serves the black believers of that area.

Conditions in this area are quite different from those just discussed in Michigan and in California. For the most part these states are not the fastest growing states in the Union and in addition the church membership in these areas is relatively small with but two notable exceptions, the Greater Denver area and the city of Lincoln, Nebraska.

The Central Union has a membership of about 28 000 in close to 300 churches. The membership is comparable to several different

California local conferences though the union extends from Yellowstone National Park in Wyoming to the Mississippi basin near Memphis, Tennessee. There are a little over a thousand Adventists in Wyoming, about 4 000 in Kansas and 5 000 each in Nebraska and Missouri. The Central States conference has about 3 000 members and Colorado has over 9 000 (G31, 6).

In interpreting membership figures it must be kept in mind that Adventists tend to congregate about institutions, not only because of the needs in employment but because of the educational advantages. It is thus that about half of Nebraska's Adventists are in one city, namely Lincoln. Denver and Boulder are centers within Colorado. It is apparent that these concentrations bring new light to the observations and eventual solutions and guidelines.

The 67 elementary schools of the Central Union enrolled 2 678 pupils in 1973-1974. About half of these are in Colorado, 1 315. 109 are in three schools of the Black conference. Kansas has eight schools with 250 pupils. Missouri has 13 schools with 454. Nebraska has 12 schools with 491 and only two of these dozen schools have more than one teacher, namely Omaha and Lincoln with Lincoln having a major fraction, close to half of the entire enrollment of the state. Wyoming has eight schools with 81 pupils scattered over a vast area (G10).

Most of these conferences have a superintendent that doubles as youth activities leader. Colorado has a separate superintendent as well as an elementary supervisor available to assist about the conference. Nebraska also has a separate educational superintendent.

The Central Union has a superintendent as well as an elementary supervisor who travels about the various states of the Central Union (M56).

Six academies comprise the secondary school inventory of the Central Union, aside from the dozen junior academies scattered about the Union. The six academies enroll about 1 000 pupils. Campion, a boarding academy in Colorado, has about 300 pupils while the remaining academies enroll between 100 and less than 200. College View Academy in Lincoln, Nebraska and Mile High Academy in Denver, Colorado are the two day academies. The other boarding academies are Enterprise in central Kansas, Sunnydale in central Missouri and Platte Valley in central Nebraska. The junior academies have a total enrollment of 146 in grades nine or nine and ten and are found mainly in larger cities (G9, 2).

The six academies of the union have a teaching staff of about 85. The elementary schools have 178 teachers with 84 in Colorado (G31, 22; G10, 4). Obviously these teachers are scattered about many thousands of square miles, thus their services would be difficult to coordinate, though it is possible that various cooperative ventures could be utilized as has been noted in isolated schools of the Appalachian Mountains and the western states.

Library holdings at the academies are weak, with all being under 6 000 volumes. College View Academy in Lincoln is but a few blocks from the 82 000 volumes of Union College, the Seventh-day Adventist college for the upper Midwest (G16, s21, 7). No figures have been found on the elementary school media holdings, but those observed have ranged from weak to pitiful. The latter observations can be made regarding most parochial schools though the schools in the Midwest tend to have less than say those in California, Oregon, Washington, Michigan and a few Adventist centers.

There are six summer camps within the Central Union scattered about the territory, thus giving some potential for further outdoor education programs. There is a campmeeting facility at Casper, Wyoming also (G32, 42).

Boulder Memorial Hospital in Boulder, Colorado has a bed capacity of 115 beds while the Porter Memorial Hospital in Denver has a capacity of 289 beds. A senior citizens center is also located in Boulder. Porter Memorial Hospital is affiliated with Union College in the offering of the nursing program thus making available a collegiate program (G31, 25).

The Christian Record Benevolent Association, publishers for the blind and hard of seeing, is located but a few blocks from Union College in Lincoln, Nebraska. This institution employes almost 70 personnel, many who are blind themselves. This unit should be considered as a possible resource in special education programs for church operated schools. Already they have been instrumental in the operation of summer camp programs for blind and hard of seeing children in several states (G31, 29).

The major educational institution of the Central Union is Union College. This college also serves the Northern Union with its membership of about 13 000. The Northern Union is comprised of Iowa, Minnesota and the Dakotas. The 200 churches support 39 elementary schools with an enrollment of a bit over 1 000. Eighty-four teachers comprise the teaching force. Three junior academies enroll about 60 pupils while the three academies enroll 420 (G9, 5; G10, 2, 5; G31, 6). The potential collegiate enrollment for the two unions would be about 1 500 pupils (G9, 2, 5). Union College actually enrolls about 750 students (G14, 3).

Though Union College is relatively small, it does have some resources, not only of value to the college itself, but potentially for the entire educational system of the area involved. The library, as previously mentioned, has about 82 000 volumes, which is rather extensive for a school of this size (G16, 7). They have an instructional television facility which is a member of the Nebraska Educational Television Council for Higher Education (NETCHE), thus giving access to a wide field of materials. A computer is on campus, thus giving potential in the data processing field. The faculty of about 100 has much potential in consultancies and other avenues of bettering the educational program in this vast area. There are three curriculum centers on campus: the main one in the library, one in the education department and one in the elementary school several blocks down the street. The college is also cooperating with Porter Memorial Hospital in Denver in the operation of the nursing program. The music department of the school is very strong as is the education department and religion department. All-in-all the school has much to offer and without doubt it has made a strong impact upon the field, though it is felt that much is to be tapped as yet as well as much need for internal streamlining to put the resources to greater utilization (P41; P39).

The Central Union Conference has its headquarters in Lincoln, but a few blocks from the college. The Nebraska Conference is located across the street from Union College and but a few blocks from the Central Union. The Christian Record office is a few blocks in another direction. One cannot but wonder about duplication of effort and facilities with these offices, plus the elementary and secondary schools but a few blocks off in still another direction! Of course this paper is on educational programs but within the Adventist denomination it is virtually impossible to discuss the one without the other definitely being involved for the same members operate both and finance both. This type of a situation is rather common in Adventist circles and it could be that much of the tenor of this paper might have applications in such situations.

6. Summary and comment

The 475 000 Adventists in North America operate 13 collegiate institutions, over 80 four-year secondary schools and over 900 elementary schools. There are 45 hospitals and three major publishing houses as well as a specialized publishing house for the blind and hard of seeing. Over 200 youth camps are held annually, most of which are in permanent facilities owned by the church. The Home Study Institute in Washington, D.C. carries on educational extension (external studies) work for the denomination. There are 71 conference offices staffed by personnel representing each facet of the church work, including education. These physical offices usually have a Book and Bible House connected to them and in addition may have branches in Adventist institutional centers.

There are two SAWS disaster and relief depots, one on each coast. Additionally there are Dorcas welfare centers all over the country as well as mobile disaster vans stationed strategically. ESDA Sales and Service has several offices, one on each coast, caring for certain institutional and worker purchases. There are four major mass communications programs in the United States in both radio and television, in addition to scores of local broadcasts. The larger of these have permanent facilities and much equipment.

Specifically the Lake Union, comprising the Great Lakes states, has a strong Adventist membership in Michigan. About half of the Union membership is in this state with Berrien Springs being the hub. It is here that Andrews University is located. Large memberships are in Battle Creek, Michigan and Hinsdale, Illinois, both medical centers.

The nine academies of the Lake Union enroll about 1 700 pupils and the 31 junior academies enroll about 450 in grades nine and ten. The latter are all connected with an elementary school, of which there are 116 schools employing 381 teachers. The total membership of the 445 churches is about 45 000.

Andrews University has an enrollment of about 2 300 and a professional staff of 200. The library has about a third million volumes. Audiovisual resources are in the thousands of items. A computer is on campus as well as television, FM radio and other sophisticated facilities with much regional and cooperative potential.

The northern portion of California, comprising the Northern and Central California Conferences has about 40 000 members in 200 churches. There are about 75 elementary schools and close to 6 000 pupils. The secondary schools enroll about 2 100 in four-year schools and 500 in junior academies. There are about 15 junior academies (or 9 grade schools) in this section of the state and eleven four year schools, two of them being entirely boarding schools.

Pacific Press is located in the city of Mountain View and the SAWS Disaster Relief depot in Watsonville. ESDA is in San Francisco with its institutional purchasing service and overseas shipping service. Four hospitals are in this area, two in the Sierra foothills, one in the lower San Joaquin Valley and one in the Nappa Valley near the coast. The Central California Conference office and Book and Bible House in in San Jose and Northern's new office is in Pleasant Hill, about an hour's drive from San Jose.

Pacific Union College is the institution of higher learning for the denomination in the northern half of the state. 160 professionals direct the 2 000 students in their studies. Facilities include a 80 000 volume library, an active A.V. Department, a curriculum lab, several telescopes, airport, agriculture program, etc.

Two permanent summer camps in northern California have been winterized and provide year-round service to the church. Similarly the Michigan conference has two year-round camps, both of which are utilized to quite an extent.

About one third of the Central Union Conference's membership is in Colorado, the location of the two denominational hospitals in the Union. About half of Nebraska's membership is in Lincoln, the location of Union College, Christian Record Benevolent Foundation (a publishing house for the blind), the Central Union and Nebraska Conference offices, as well as an elementary school and College View Academy. Kansas, Missouri and Wyoming are also in this union. All told there are about 28 000 members in the 300 churches.

Among the unique problems of this area is the fact there are but 500 pupils on all levels in states such as Kansas and Missouri. There are 2 600 elementary pupils in all five states with close to half of these in Colorado. The six academies enroll but a thousand pupils and the 12 junior academies add but 140 more secondary pupils.

Union College in Lincoln also serves the Northern Union with its 1 000 elementary pupils and 550 secondary pupils. The college itself has about 750 students. Its library is particularly strong as well as its NETCHE E.T.V. affiliation and curriculum lab. The latter has in enthusiasm what it lacks in materials. Morale is generally high, though finances are always tight.

Michigan and California are among the strongest of areas as far as Adventists are concerned. The Midwest, for the most part, is not as progressive nor as financially able as the others. Whereas pupils in the first two states are generally within reasonable commuting distances of good schools, the Central Union is scattered and relatively weak.

CHAPTER 24

CURRENT SEVENTH-DAY ADVENTIST COOPERATIVE AND/OR REGIONAL PROGRAMS AND EDUCATIONAL RESOURCES IN THE UNITED STATES

1. Introduction

In one of the previous chapters the problems and needs of the Adventist educational system were delineated. Though the discussion was not exhaustive, the reader no doubt could readily see where there is much need for growth. Still another chapter brought out some of the vast accomplishments of the denomination and how it spends about a half of its budget in the educational enterprise. This growth is not haphazard and unplanned, quite obviously, though it is very possible the planning is not integrated as it might, nor has it been as longitudinally developed as it might be with all factors placed in proper perspective.

In recent years there has been renewed emphasis placed on cooperative action. Various forms of regional programs have been placed in action, though none of the dimension of the regional educational service center as seen in many portions of the land at this time.
It should be made clear that Seventh-day Adventists are not new to the cooperative field, nor to the concept of inter-related action. Though it might be acknowledged that many weaknesses exist, yet the denomination

undoubtedly ranks high in various avenues of cooperative action. This chapter will attempt to outline in general what some of the newer attempts are in this field.

2. The co-operative and regional concept as it currently exists

To some degree the conference office acts as a regional office in that it serves a state-wide area, or the equivalent. This office is supported by the local churches, administratively and financially. The organization of the church as a whole is such that the local conference is somewhat analogous to the intermediate educational administrative unit, which generally is the heart of the regional educational service center, though the geographic area of the conference is usually larger.

Local conference educational superintendent's offices do in fact carry on many of the service functions as enumerated within this paper, though most will recognize that the effectiveness is somewhat limited. Among these services the following are typical of those found about the country:

1. Curriculum consultant or supervisory assistance to elementary schools
2. Co-ordination of employment, recruiting of teachers etc.
3. In-service workshops, bulletin service with ideas, directives and similar administrative and instructional assistance
4. Co-ordination of certain purchases, notification of special financial deals etc.
5. Provision of standardized testing materials for smaller schools

6. Provision of professional growth books of the year to local schools via mail delivery
7. Book and Bible House acts as central purchaser for textbooks
8. Work with union conference in researching and writing curriculum guides, manuals, and similar professional printed materials (P30).

The above list is not exhaustive, but illustrative of the more common types of service offered. It must be kept in mind that the smaller conferences have but one-half person acting as superintendent for he must also act as youth activities director. Larger conferences have a full time superintendent and still larger ones will have a supervisor in addition. Union conferences usually have a supervisor who often must be on the road covering several states. Professionally speaking most of the educational offices are grossly under-staffed and those on duty must spread themselves thin and become very definite educational generalists. This is an evident weakness that must be considered.

The union conference office is similar to the local office other than it is comprised of several local conferences and thus is multi-state in its bounds. Services offered by this administrative unit are similar to the lower offices. At this level the secondary educational program is coordinated more so than on the local conference level. Curriculum guide committees usually originate in this office. In the larger unions the guides are produced for that single union while in the eastern portion of the United States several unions usually cooperate in their production. Textbooks usually originate with the General Conference, though committees are derived from various portions of the country, thus cooperative action is involved very directly (P30; G13).

Boarding academies are a cooperative venture in the true sense in that they usually are operated by the local conference. Day academies generally are operated by several churches working in unison. Similarly many elementary and most junior academies are operated as union schools, that is having joint operating school boards and financing. Probably the weakness in this organization is that the educational program is not sufficiently coordinated as part of a total educational plan. Actually many, if not most, of the union schools are local arrangements. Similarly the academies are not really part of the educational program of the local conference in that the superintendent does not have sufficient power to coordinate the secondary and elementary schools as a total program. Obviously there is a certain amount of correlation of programs, but evidently not ample to operate a really efficient program instructionally or administratively.

Notice has been made that many local conferences already have a district or regional division of the local conference. These are found in church districts, youth activity arrangements, Dorcas welfare regions and similar groupings. The principle has not been established in the educational setting, other than the voluntary arrangements mentioned (M27; C33, 2).

Colleges are usually operated by the union conference, though Union College in Nebraska has two unions sponsoring it. The two universities are General Conference institutions, although the college divisions are union supported.

Overall the arrangements of support, such as the union conferences operating the colleges, the local conferences operating the boarding academies, local cooperatives operating day academies, junior academies and union elementary schools, appear to be appropriate and generally successful. The weakness seems to be in inter-institutional coordination of resources and services. This dilemma is even noted within a single institution or the local church and its parochial school--duplications, lack of cooperation, poor usage of audiovisual equipment, lack of pool purchasing, personnel duplication and similar items of apparent import (P30).

In summation the Adventist program no doubt is among the best when it comes to achievement, however, certain weaknesses are apparent and should be noted in context with the thesis of this paper (G13).

3. Pool purchasing

For many years the General Conference has operated ESDA, a pool-type purchasing agency with its main office in Washington, D.C. This office has served the denomination as a whole, though its emphasis has been upon overseas activity. Evidently some have felt that it has not adequately served the North American Division for the Pacific Union Conference with offices in Glendale, California has opened an office of Institutional Services. This is a pool purchasing agency, initially instituted to serve the Pacific Union but now officially serving the North American Division. Not all institutions within the division are obligated to purchase through the Institutional Services office, however, the director of the office has presented evidence that pool purchasing can save a tremendous amount of expenditures to most institutions. Though the office has been in operation only since July of 1968, estimates indicate a savings to the church of millions of dollars in but a few years.

Purchasing is limited to the institutions and its workers ordering through the institution. In most cases their prices are lower than the discount houses and of course they have availability of items not carried in such establishments. In some cases shipment must be made from the main office while in other situations local dealers deliver the items, as well as carry the warranties and maintenance.

A strong point in favor of the program is that specialista have been involved from various disciplines and skills in the implementation of the service. Additionally personnel with experience in this field have been utilized in the office as well as in the bidding and purchasing procedures.

Though few can argue the value of pool purchasing when it comes to fiscal savings, there are human factors that must be considered. Knipschild gives the following points that bring on lethargy when it comes to instituting a pool purchasing program:

1. Hospitals tried and failed
2. Problems of standardization
3. Problems of local service
4. Problems of administrative fear of department heads
5. Gratuities by salesmen to purchasing agents and department heads

6. Due to historical necessity--principals and pastors (some) would rather spend hours being "gov't surplus" or "discount" specialists than doing the job they've been ordained to (K14, 1).

Institutional Services has been doing considerable work in national contracts and looking forward to international contracts. Already paper has been purchased in car-load shipments at considerable cash savings. In two years over $33 000 was saved on sewing machines alone. By working together as a team, funds are being channeled into more worthwhile causes than high profits to dealers. The director gave the following invitation, which summarizes the purpose of the program:

> All of the institutions of the Pacific Union are invited to pool their research, contacts and resources through the Department of Institutional Services for just one purpose--obtaining maximum use out of God's dollars given by God's people in developing gross purchasing power to do God's work in a way that will assure God's acclaim (P6, 3).

Though the cooperation has not been 100 per cent and entirely enthusiastic, yet growth is seen in the department and in the extension to the North American Division (P5; P6; K14; H20).

4. Home Study Institute

The Home Study Institute is the extension division of the educational institutions of the denomination and thus is a cooperative endeavor. This institute is among the largest extension schools in the United States and carries on a considerable service with overseas and domestic students and pupils on all levels from elementary trough collegiate education.

Aside from the obvious service of correspondence education for students and pupils in isolated areas, those needing certain courses for certification, graduation or general self-help; the Home Study Institute is in the process of producing a television course on videotape in the field of religion. This initial course is planned to be used in academies, not as an individual home course inasmuch as most people do not have video tape players in their possession at this time. This course is being produced with

> . . . considerable flexibility built into it so it can be used either as a one-semester study under a teaching supervisor or broken up and spread over three years of study used largely as source and motivation material (H23, 1).

The course is being produced by the Audiovisual Services of the General Conference.

Emphasis in the program is the production of courses not available through the typical channels. Enrichment of the secondary curriculum is available via videotape. Specialists from the denomination are being utilized in this program, which appears to have great promise in light of what is being done in various parts of the country, such as Nebraska, Maryland, South Carolina and other areas (H23).

5. Radio, Television and Film Center

The 1971 Autumn Council of the Seventh-day Adventist church voted that a center be established for production of the denominational radio, television and film materials. This facility has been located in Thousand Oaks, California, about a 35 minute drive from Hollywood which is a center for communications. It has been the intent of the church to coordinate the expensive production facilities of the various programs. In the past Faith for Today television has been quartered in a suburb of New York City. Voice of Prophecy radio has been in Glendale, California, a suburb of Los Angeles and It is Written television has not had a facility such as the other two, but production has been in commercial studios for the most part. This new facility will give production space to all three as well as filming facilities for the Audio Visual Service unit of the General Conference.

According to the Council action other facilities will eventually be shared by these mass communications organizations also. Inasmuch as the groups involved do considerable printing, carry on extensive correspondence with listeners and viewers, operate Bible Correspondence Schools enrolling literally tens of thousands of people, such increased utilization of facilities, equipment and personnel would seen to be very advantageous. It is apparent that the church's leadership saw light in this arrangement (H30, 22-23).

Information as to progress at this juncture evidently is "pretty much confidential committee-board actions at this time" (I15). However the latest reports indicate the center is in operation. The reasons for this secrecy are not known, though hopefully there is ample purpose in it. Though the action in coordinating the activities of these groups is admirable in the light of current movements in administration and media, yet one can't but wonder as to the need for this modus operandi. It would appear that the fullest utilization of the potential of such a center as this would entail the educational phases of the denomination. Though the upper eschelons of educational administration might have been involved, the media personnel in education evidently are in the dark (H30; I14; I15).

6. Board of Higher Education

It is very probable that the creation of the Board of Higher Education for the North American Division is one of the most important actions within the Adventist educational program in recent years. In the light of this paper it is highly significant in that much of what is involved in aims and objectives is similar to that of the regional educational service center, namely to make the dollar go further.

The 1970 Autumn Council authorized the establishment of a North American Division Board of Higher Education to act as a central body of higher education. This board is to initiate and develop a long range program of collegiate education, coordinate the programs of the various colleges and universities and generally maintain an overview of the entire program. It is their aim to more clearly bring about a system of higher education within the denomination. In the recent past the term "system" was hardly applicable, though there was a degree of coordination. The following list of duties gives indication of the Board's current directive:

> The Board of Higher Education shall:
>
> a. Conduct research on the needs and outcomes of higher education;
> b. Develop and maintain a comprehensive long-range master plan subject to regular updating and revision;
> c. Recommend to approve the establishment or discontinuance of universities, colleges, schools, college divisions, programs, majors, institutes, departments, branches, campuses and other units as may be indicated by the master plan;
> d. Recommend minimum admission standards applicable to all institutions of higher education, except that nothing in this (authorization) shall be construed to prevent individual

institutions from establishing higher minimum admission requirements as may be approved by the college or university board.

3. Provide minimum standards for all institutions of higher education for degree granting, approve new programs and degrees and recommend and/or approve discontinuance of degrees and educational programs, etc. as required for coordination and complementary offerings throughout the North American Division. However, nothing in this authorization shall be construed to prevent individual institutions from establishing higher minimum standards for degree granting; ("programs" as used in this sub-paragraph means areas or fields in which degrees or nondegree certificates might be granted and shall not include individual courses nor course content nor shall it include the course composition of areas or fields);

f. Provide for visitation at institutions of higher education to ascertain their manner of conducting their affairs and their implementation of the Board of Higher Education's recommendations;

g. Receive annually all special grant requests from institutions and allocate funds when available.

h. Supervise the application of salaries and prerequisite schedules in accordance with North American Division policy and recommend general board personnel policies for the institutions of higher education;

i. Encourage harmonious and cooperative relationship between and among the institutions of higher education;

j. Review periodically existing programs of instruction, research, and training for denominational service in the institutions of higher education, and advise them regarding desirable change;

k. Keep the Division informed of the needs and accomplishments, both qualitative and quantitative, of higher education through periodic reports, releases, conferences, and other means;

l. Require from institutions of higher education such reports as will enable the Board to perform its duties and functions (G19, 2).

It will be noted that the Board of Higher Education does have administrative powers. Though in the past there were limited agreements and certain administrative actions, the needed impetus was not available to bring about necessary action. An executive secretary has been appointed by the North American Division Committee on Administration, however, there is a basically democratic board as such comprised of church officials of the General Conference, officials from the General Conference Department of Education, the college and university presidents, the union conference presidents, college and university board chairmen and, of course, the executive secretary himself. While the above list is of the ex officio membership, there are appointive members also, including a union conference secretary of education, a secondary principal, five laymen, three others and a higher education finance officer. There may be up to seven consultants, which are noted in the policy as representing various fields, such as collegiate deans, registrars and financial officers (G19, 3).

The first executive director of the Board of Higher Education has noted five key problems facing Adventist higher education, which frequently are common with schools on lower levels also. First he listed finances in that most institutions of higher learning within the North American Division are operating in the red and those who were able to operate in the black were able to do so primarily because of the auxiliary enterprises of the school such as the college wood shop or bookbindery. "This is a situation that cannot be ignored and for which a solution must be found, if not in haste, then at least with all deliberate speed!" (H11, 2).

If an enrollment of 1200 is accepted as a first plateau of efficient operation of a college, then only five of the thirteen North American collegiate institutions would qualify. In addition to the enrollment quantity, there is the problem of tuition which is rising at a rapid rate, considerably more so than at state institutions generally speaking.

The third problem facing the denomination is the regional nature of the colleges. These schools basically serve a union conference comprised of several states. Each college has attempted to be all things to all students, which though possibly a noble ambition has been somewhat less than efficient.

The fourth problem might be better stated by Executive Secretary Harder himself,

> A fourth problem is the sameness of the programs offered by the various colleges. The basic difference between our institutions are in size, racial mixture, and climate, none of which has had much effect on the scope of curricula that are offered. The result is that we have numerous duplications of high-cost low-demand fields, while at the same time, perhaps, leaving some needs of a substantial number of our young people unmet (H11, 2).

Educational quality is the fifth area that needs notation. It is quite evident that such small marginal institutions would have problems in maintaining a quality program. With finances tight and enrollments hardly up to what they might be, it is to be expected that something would soon be missing. Yet, Harder suggests that these schools can achieve the lofty ideals set for them.

> We can develop prestige institutions and we can become a prestige system. I urge that the leaders in Seventh-day Adventist higher education accept this goal and then do that which is necessary to achieve it--whatever that may be (H11, 3).

The five issues mentioned do have certain common roots to those mentioned elsewhere in this paper, though it is granted that higher education has certain unique problems and also that it has unique solutions that may not be available to smaller schools or those on lower grade levels (H11, 1-3).

Though this board is in its infancy, some of the preliminary suggestions are appropro in many instances, either directly or modified, to other school evels. Accounting procedures are being standardized. Efficiency studies can thus be more easily conducted with such procedures being utilized.

All colleges, universities and most boarding acdaemies have school industries. Study needs to be given regarding these enterprises and their profitability and overall total contribution. Cooperation via chain plants etc. are possibilities that have already been implemented to some degree in some fields, but still need further study.

Harder suggests six areas that need immediate attention within the area of academic planning:

1. A stronger emphasis on two-year programs.
2. A reduction in the number of high-cost low demand majors.
3. Enlargement of course credit so that 4 quarter credits is the minimum unit.
4. A closer coordination between professional schools and pre-professional curricula.
5. Elimination of duplicate, high subject matter content graduate programs.
6. More 7:00 a.m. to 10:00 p.m. and six days per week class and laboratory scheduling for maximum use of facilities (H11, 3-4).

A review of this paper will reveal many similarities to the above suggestions. Several key words are seen here as well as in many other situations: "closer coordination," "elimination of duplicates," "scheduling for maximum use of facilities" as well as "reduction" in areas that are not really worth the investment. Few would argue that these are simple solutions to a complex problem, yet the evidence appears to be that these keys do have elements worthy of investigation. Where it has been tried, positive results generally have been noted.

The Board of Higher Education is one more group attempting to find a solution to its problems via cooperative action (H11).

> To be helpful toward our task objections must be accompanied by alternatives. We must find the best way together; we must find it now; and together we must make it work! (H11, 12).

According to reports, the institutions generally seem to see the advantages of the program, though some reluctance is seen by some for there are potential losses to member institutions and their personnel for accommodations and changes will have to be made. Vested interests are found in all quarters and their interests can readily be understood, yet compromise is needed for the common good as well as for local gains. No doubt a reason for the success of the Board so far has been the indepth studies made prior to directives being issued. In addition the Board is determined that the system function effectively. In the long run, cooperation appears to have the odds over independent operation under the circumstances outlined (G28; A29; A35; H9).

The Board of Higher Education has made a notable contribution in a short period of time. Master planning is being implemented in a fashion not known heretofore. Duplication and premature projects are being resolved. Rather than each going his own route, the schools are planning together for long-range goals. So far the positive observations seem to outweigh any negative comments (S22; H10; H12; G19; H11).

7. Observations on cooperative and regional action within the church

A situation that has been noted all too often is the planning and establishment of various programs or facilities without adequate, comprehensive investigation of all possible applications of the item under study and implementation. It appears that the personnel involved in the high level decision positions, no matter what the particular organization may be, have tended to make decisions without adequate knowledge of the fields involved. Without doubt certain consultants have been utilized to some degree, but as a whole certain professions tend to dominate on the level that controls the action. This could very likely be a weakness of the system. Though coordination is a need, without any doubt, yet a few appear to have considerable control over many and varied fields of endeavor. Because of this situation there have been possibly more poor decisions made than might have normally been made were the power structure distributed to those with expertise within the fields involved.

A poll of denominational workers would undoubtedly reveal that most feel progress has been made in the area just discussed. Even though it be accepted that progress has been made, various actions and implementations of those actions, reveal that there is ample room for improvement within the structure of the hierarchy of the denomination and its subordinate organizations. Generally speaking, there is a need for specialists with professional and practical background in various positions of administration and general coordination of certain programs, if not most programs. The era of the generalist for all positions is probably past. Though it is granted that a place is necessitated for the generalist in many areas, it is also noted that specialists in various professions are mandatory in this age, for many other areas. One thing is sure, a generalist even within his field, usually, is hardly in a position to give direction to all the highly specialized fields within the denominational program. Much adieu is made about credentials and certification of personnel in some areas of relatively minor import, yet higher up the heirarchial ladder administrators are planning and deciding on issues with which they don't have ample expertise. This situation has been observed on various levels of the organizational ladder, down to the local church school where the credentialed educators frequently have little say on issues of major import to the school. It is felt that this is a weakness. Without doubt this condition is involved in cooperative and regional programs that currently exist also, thus ample action must be taken.

It is a fact that the Seventh-day Adventist denomination is a progressive and growing church. They were among the first denominations in the religious telecommunications field. Many facets of education were promoted by the church's schools in the last century, again prior to their later acceptance by the wider field. Hydrotherapy and health foods were fostered by the church prior to the current interest. Psychosomatic medicine, preventive medicine, dietetics, and other health related fields were and are promoted by the church's institutions. Teaching regarding the harmful effects of alcohol, drugs and tobacco was far before the current emphasis. Other avenues and programs might be added such as the promotion of civil defense and disaster relief programs, which are in the forefront of denominational programs in the nation.

Not for one moment is it the intention to suggest that the Seventh-day Adventist denomination is totally asleep and behind the times. On the other hand, objective appraisal must be made in order for progress to be made. In regard to several of the programs that have been instituted that are of a cooperative and/or regional nature, a few questions and observations of a specific nature might be noted. In regard to the Audiovisual Center in Thousand Oaks, California one can't but wonder what place education is to fill in its services. On the surface it would appear that the concept of centralizing audiovisual and similar services of the telecommunications field would very definitely be in line with practices that are gaining acceptance about the nation. Yet each college has one or more instructional television units on campus. Some academies have such facilities as do some hospitals. Many educational and medical institutions of the church have film production facilities of some degree. What plans are involved for the coordination of these facilities? Where does this new unit in California fit into the total program? Is it confined to the public ministry program, or does it fill instructional purposes also? Inquiry has been made but answers weren't available to this researcher who is in the general field involved in one of the denominations two universities. This situation can't help but leave many questions, even though the general idea appears to have the ear-marks of a truly progressive move.

This paper cannot analyze every facet of each program, though certain aspects bear mention, in that they are appropriate to the theme of this presentation. For instance in the board membership of the Board of Higher Education provision is made for a rather comprehensive representation, which is notable and worthy. Yet there is but one union conference secretary of education from the entire North American Division and but one academy principal among the appointive members. True, there is token representation, however, it should be remembered that the colleges are primarily union conference institutions. However, how much direction can the union conference secretary of education give to the educational program at the college, either directly or via the Board of Higher Education? It is likely that he is on the board of trustees, but other than that the liaison between the two offices leaves much to be desired.

In a similar vein but one academy principal is involved. It may be that this really is all that is necessary, however, again this may be symbolic of the lack of coordination that exists between the institutions of higher learning and the secondary schools. A similar gap exists between the secondary schools and the junior academies and elementary schools. No, it is not planned that way, it just exists. Does this build strength? Is this a total system of education, or compartmental--basically three in number, elementary, secondary and collegiate, each relatively independent of each other?

Caution must again be noted. The coordination is not one of no existence, but rather one of degree and general total planning. Much has been done, as has been exhibited in these pages, however, it is questionable if one could consider it as a total "system" of education, from preschool to professional education, in the sense that each is part of a coordinated whole. Without doubt the Board of Higher Education is a major step in the direction of a coordinated system of education, a move, hopefully, that will trigger similar action on other levels and within their unique realm.

In regard to Institutional Services it is questionable if all church institutions should be required to purchase through them or ESDA, yet, as it is millions of dollars are being poorly invested--funds that are sorely needed everywhere! On the local and district level, yes on the conference level, who is doing the buying? How many have access to purchasing guides, critical evaluations of products, comparative price indexes, quality evaluations, per unit costs, and similar information to make intelligent purchases? A survey would no doubt indicate that the majority of products are purchased without these aids and without impartial expert evaluations. Without doubt something must be done to correct this situation. Several moves have been made that appear to indicate real cost savings through pool purchasing. No doubt this program should be expanded and its program involve the lower eschelons, possibly involving the establishment of professional buyers or business managers, rather than educators or ministers without this expertise. As it is the latter is what usually exists, and this is probably not the best approach.

8. The regional center in the Seventh-day Adventist school system

The regional educational service center, as such, does not exist at present within the Adventist school system. As has been pointed out, certain aspects of the concept are found in operation. Walla Walla College, in Washington State, is in the early stages of such a program as far as the media phases are concerned. The Curriculum Laboratory serves teachers in the area with various audiovisual software being available on loan.

The Teaching Materials Center at Andrews University unofficially assists schools in the area, though the current official policy is rather restricted. No doubt many such facilities among the Adventist schools are in a similar limbo with much depending upon the good nature of local administrators but with little in official policy that promotes the concept of cooperative action on all levels of education as well as the other phases of church endeavor. In principle most wish to help whenever possible but all too frequently it is not part of a planned program.

Without doubt other exhibits could be assembled of programs whereby various schools are serving their communities in this way or that. Seventh-day Adventists are service-oriented in their philosophy and have done much to assist both non-Adventists and those within their ranks. However, it is felt that a fair appraisal of the program reveals many avenues that have not been amply explored.

Other than the Roman Catholic school system, the Adventist church has the most elements on tap for the implementation of a regional educational service center program. Its structure is already admirably arranged as a basis for such a program. From the evidence it appears that organization is the prime requisite, other than the selling of the concept.

9. The Storz study

This paper would not be complete without reference to a study by Storz. The title succinctly covers the subject of the study: A Proposed Guide for the Establishment of Regional Media Centers for Elementary and Secondary Seventh-day Adventist Schools. Her emphasis in this study as regards initial implementation was to the San Francisco Bay Area. Inasmuch as this study covers a phase of the subject being herein discussed and inasmuch as the media center concept is at the heart of most regional educational service centers and furthermore, inasmuch as one of the applicational areas of this study is that of the northern portion of California, the Storz study should be studied in detail, though only a summary can be noted here.

The Storz concept suggests that these regional media centers are "to enrich and support the educational program of individual schools and the basic beliefs of the church" (S62, 1). The desire is to make available a "rich and varied collection of printed and audio-visual media for growth, guidance, and enjoyment at all phases of maturity" (S62, 1). A further objective is to assist pupils in their use of various media in their current study as well as in after years. In-service professional programs are envisioned as well as assistance to the teacher in the provision of day-to-day materials.

The following needs should be met in such a center:

1. a central depository for all types of teaching material, resources, and equipment;
2. an up-to-date file on all material in the center;
3. inform teachers of new materials, resources, and services;
4. provide in-service education for teachers in the use of material and equipment;
5. maintain equipment and materials in good repair;
6. a work center where teachers can produce or request production of needed materials (S62, 1).

These needs were based upon, among other things, the findings of a survey among seven Seventh-day Adventist schools of the East Bay in California. The findings noted that most of the schools were woefully inadequate in their media holdings and services, based upon California and national library and audiovisual association standards (C3; A16; A15). Book budgets for these schools ranged from nothing to $885, the latter being a school with an enrollment of over 200. Five of the schools had a total of seven student-oriented periodicals coming to the schools. None of the schools had a daily newspaper and only two out of six had verticle files with pamphlets etc. Only one of the schools had over a thousand volumes on the shelves (S62, 29).

In the field of audiovisual software the largest school had 20 filmstrips, the second largest had a dozen and of the other five, one school had two filmstrips. Only the largest school had slides and only one utilized transparencies. Only three schools had disc recordings and the largest of these a dozen. There were 35 tapes out of the seven schools and these were in two of the smaller schools. No schools had study prints. In the field of maps and globes the situation was a bit more promising with all but one school having some of one or the other (S63, 37).

The survey noted all but two of the schools had record players and two schools had radios, while but one had a television receiver. Four schools had access to a tape recorder and none had opaque projectors. Three had overhead projectors. The three filmstrip and slide projectors were in the two largest schools. None had an 8 mm cartridge projector while all but one school had a 16 mm unit. There was one spirit duplicator in all but one school (S63, 37-38).

It is quite apparent that this is a very weak situation. One should keep in mind that this survey was taken in one of the two major population areas of California, the state with the largest number of Seventh-day Adventists by a large margin. Though the East Bay does not have the largest concentration of Adventists, it does represent a sizeable number of members. The results of this survey are similar in scope and results to that of Ellsworth and his study of audio-visuals in the Seventh-day Adventist schools of Michigan, though the Storz study was multimedia in scope while Ellsworth had only Audio-visuals in his study (S63; E22).

The Storz study and the Ellsworth study both make it very obvious that the media situation, including both hardware and software, is very much in need of improvement. Both studies were conducted in areas of heavier Adventist population and in sectors of greater affluence. Both studies were carried out in large conferences. If this is the situation among the largest and most affluent conferences and the associated schools what must it be in areas of less population and lower per capita incomes?

For purposes of comparison the regional educational media center is not necessarily the equivalent of a regional educational service center. Generally speaking the former is part of the latter, though, as noted previously, it is a formidable and major portion.

10. Summary and comment

Though the regional educational service center does not exist as such within the ranks of the Seventh-day Adventist schools, there are programs that have features of these units. The local conference office serves many functions that are cared for by the regional center, such as instructional assistance, in-service education coordination, centralized book purchasing and similar services. The hiring and maintenance of personnel is via this office. The boarding academy is a cooperative venture as is the operation of most local academies, junior academies and many elementary schools.

In the field of pool purchasing ESDA has carried on some of the features of cost savings via cooperative purchasing, though of late the Institutional Services department of the Pacific Union and now of the General Conference is operating a program that is formally serving all institutions. Already millions of dollars have been saved.

The Home Study Institute of Washington, D.C. is the extension division for Adventist schools and serves groups from the elementary level through college as well as adult education courses. Television courses are being developed that can be utilized for enrichment or regular course material for secondary schools.

The new audiovisual center in Thousand Oaks, California is in the process of evolving into a joint facility for the denomination's filming and television production. At this juncture emphasis appears to be in the evangelistic realm though certain educational uses hopefully will materialize in time. Other centralized services for the radio and television programming are under plan also.

The Board of Higher Education has been delegated to systematize the higher education program of the North American Division. The concept is planned to eliminate duplications, improve programs, adjust programs where necessary to increase productivity and efficiency, develop a master plan, provide minimum standards for various programs and similar functions designed to formulate a true Adventist system of higher education in North America.

Several studies have been made to determine the status of media use and media holdings. One study in Michigan centered on the audiovisual phases while one in California took a multimedia approach among East Bay schools. The later study recommended a regional media center. This study very likely is a forerunner in serious study given to the regional media center concept (S6).

In summation it can be said that the church is beginning to see light, evidently, in a stronger approach to cooperative and regional action. Several chapters have noted various programs that have aspects of the concept, either from a cooperative viewpoint over a vast geographical area such as the Institutional Services pool purchasing program and the Board of Higher Education or in the church districts and informal school districts or in the various types of loose regions for Dorcas or youth organizations within local conferences.

CHAPTER 25

CONCLUSIONS

Though the cooperative/regional movement, as studied in this paper, is less than two decades in age, most all the evidence points to a successful pattern of growth. Though few will expound in 100 per cent positive terms in regard to the concept and its applications, yet there appears to be a relatively small voice of dissent. Shortcomings are acknowledged but the overall values seem to far outweigh disadvantages. There is every indication that the regional educational service center in its various forms is here to stay for some time, though it is planned, even by those within the centers, that they play an evolutionary role.

This study has brought the writer to several observations and conclusions. They will be listed numerically, though not in any sequence.

1. The regional educational service center has evolved from a felt need. The regional approach to the solution of various community problems is found in virtually all fields. In education the cooperative avenue of action has been used most notably in the media field, though many other services are generally offered.
2. It should be clarified that the regional educational service center is not a single type of institution on a single level

of administration. There are many varieties of R.E.S.C. units covering many geographical areas. Generally speaking a complete service unit would specialize in media though it would also offer many other types of services in instruction, administration and other fields. Typically it is multi-county in extent, however, this does not exclude specialized regional programs nor does it necessarily confine the concept to multi-county areas.

3. The regional programs tend to reflect the increased professionalization of education. The intermediate units definitely indicate an increased awareness of service rather than administration, per se. Some R.E.S.C. are pure service units while others maintain administrative offices on the intermediate level.
4. A large proportion of the regional programs have involved considerable school reorganization. For optimum efficiency such reorganization is a virtual necessity, though certain services can be offered within the status quo.
5. The regional idea is more than a building. It is a concept of cooperative action that should permeate the thinking of those involved if it is to bear fruit to its fullest.
6. In many areas the local colleges and universities have played a key role in regional programs. Much can be learned from collegiate consortiums, however, the significance is increased when the cooperation is extended to all

educational levels within the region. It is very possible that within Adventist circles this role could be paramount and critical in the coming years.

7. It is apparent from this study that cooperative action requires an organization to give up certain perogatives in order to gain the multitude of advantages from a regional program. If proper safeguards are built into the agreements, there appears to be no reason why such programs cannot be workable. Much can be learned from the volunteer cooperatives along this line.
8. A very real fear of many is that "bigness" will swallow up the local schools and districts. Constant attention must be paid to this situation. Many have had their fill of bureacracy and the general accompanying bungling and inefficiency. The R.E.S.C. is instituted to serve and increase efficiency.
9. Related to begness is a tendency towards dictatorial actions. Undoubtedly such occurs and definite action must be taken to insure the rights of all constituent bodies as well as the protection from dictatorial administrators. It is very possible that these two elements could spell the downfall of the concept if proper precautions are not taken.
10. Several studies have noted that the areas that would most likely benefit from cooperative action often do not join in a regional program. There is a relationship between the desire to share and general educational progress. On the

other hand the parochial thinkers tend to be very independent and conservative. It may be necessary to put appropriate pressure, at times, to encourage progressive, mutual action. Several states have been doing this, though safeguards need to be built in.

11. Though the literature indicates that most R.E.S.C. cover a pupil population of from 10 000 to 50 000, it is obvious that the applications to Seventh-day Adventist schools will have to be considerably modified. The above population range generally is within a one hour driving radius of the center. With less than 100 000 pupils within the Adventist schools in all of North America there will need to be a multi-level service program covering the entire country in some instances. In many areas a regional program will have to be less than optimum in efficiency, though the situations found in public schools have much to offer in ideas and possible applications.

12. It must be remembered that most R.E.S.C. have been federally funded to varying degrees and overall they are paid for via taxes. Adventist units do not receive such funds and most Adventist educators feel it should remain that way. Nevertheless the funding arrangements as used in the R.E.S.A. have general application to church operated schools. The type of money source is different but the arrangements are similar.

13. Because of the size and organization of the Seventh-day Adventist school system it would seem appropriate for the modified applications to the church operated schools to be both administrative and service oriented rather than just service. To be otherwise would be inefficient in many avenues, though some facets could still be strictly service oriented.
14. The R.E.S.C. is generally a service unit geared to the needs of the local districts even though the state might be the agent of instigation. In some situations a multi-state regional organization was the change agent. Typically emphasis is placed on local service. This approach appears to be one that will more likely endure.
15. Evidence indicates that voluntary cooperatives tend to be more successful than mandated organizations. Nevertheless many schools and districts need some prodding to stir them from their lethargy. For whatever the approach there needs to be stability in the financial arrangements. A weak program tends to ultimately develop when the budget is an annual hastle with schools and districts changing their membership at every whim.
16. R.E.S.C. units that have depended totally upon federal funds have had real problems. Those units with a broader financial base, especially with strong local support, have shown maintenance of their position and even growth.

Many of the federally funded centers were on three year grants with little in local support, thus a demise after a few years.

17. In order for a regional program to be successful it is not necessary that the region's boundaries be the same as the political borders. Some regions cross state lines. Progressive programs exist in which the clientele is selective within the regional boundaries with some districts or schools abstaining from participation, though this would not appear to be ideal.

18. The decentralization movement and the redistricting programs as noted most widely in the Midwest, which is directly related to the R.E.S.C. programs, tend to be approaching a similar size for efficiency of operation. Educational services are directly related to these trends in size, though some services such as educational television will require a much larger region, possibly even multi-state.

19. The development of a regional program does not necessarily mean there will be a decrease in costs. True, there are savings via pool purchasing, better utilization of facilities and media and fuller use of personnel in their field of expertise; however, the larger values probably are in the added educational services that would not be available otherwise, the greater wealth of resources and the overall increase of educational quality.

20. Inasmuch as the basic premise of the R.E.S.C. movement is the offering of needed services there is much in the line of specialized service centers. These might be in science, fine arts or outdoor education. Some are geared to research and study councils while others are in media cataloging services. A full service facility is not the only avenue that might be pursued. This concept is critical in the application to the Adventist school system, for the full-service R.E.S.C. as noted in Nebraska or New York would not be feasible in most Adventist circles, at least in the same form or to the same extent.

21. It is acknowledged that various forms of regional programs will most likely always exist for many rural and isolated schools can not offer all that is required. Programs for these areas, such as in the mountainous parts of the country, should be particularly noted by Adventist educators for they have much in common.

22. It is generally conceded that services should be as close to the ultimate user as possible, however, many and sundry factors will dictate what will go where. The regional educational service center will vary from place to place in its composition. There is even cooperation among R.E.S.C. The location of various facilities, materials and personnel may be on varied levels and possibly in different types of regional centers. Otherwise, there is no set pattern or a

single R.E.S.C. that fills every need within a given region. It is much more complex!

23. A R.E.S.C. can not be any stronger than the aggregate of it's composite parts and their total resources. Thus the application of many of the principles in this study will require a national posture within the ranks of the Seventh-day Adventists and their school system which in it's totality within North America numbers less than 100 000 pupils and students.

Conclusions in regard to Adventist schools

Though it is apparent to objective inquiry that the Seventh-day Adventist schools have done an admirable job of educating young people even though hampered with much that is generally considered indispensible, it must also be recognized that weaknesses do occur and the intelligent and honest Adventist educator must realize the lacks and be willing to find solutions.

Some observations and conclusions as they relate more specifically to the Seventh-day Adventist organization are given at this juncture.

1. Adventist schools have been able to maintain their enrollments, however, it is evident that school growth has not kept pace with the membership increase within North America. There must be reasons for this gap. Where the reason is a matter of quality education, the facets mentioned in this report should be noted and their possible application studied.

2. It must be recognized that most Seventh-day Adventist schools are in a similar category to those in rural and isolated areas, thus what is being done for them in cooperative/ regional programs all about the country might have similar applications in the Adventist system.
3. Inasmuch as all the Adventist schools in North America would but make up a moderate sized school district in an urban setting or a fair sized region in a rural-small city area, there would need to be many modifications to the typical full-service R.E.S.C. The principles would stand but the application would need to consider the entire division in order to be optimally efficient.
4. Though the Adventist schools have tremendous challenges facing them in offering an optimum educational program, it is felt that a quality educational program can be produced without an undue increase in costs. The modified application of the cooperative/regional concept along with the adoption of other innovative and time-tested techniques can improve the system.
5. In order for optimum improvements to occur it will probably be necessary, utlimately, to make administrative changes and organize the schools into districts and regions. Public schools have had to reorganize the latter but for the most part this has not even existed in the first place in Adventist circles. This may be an advantage. The R.E.S.C. movement has been directly related to reorganization programs

in many areas, at times operating under the one and same administration. In any case they are definitely related and both must be considered.

6. Without any doubt the desire for local autonomy is basically a healthy response, however, in Adventist schools it has worked to it's detriment all too often. Cooperative/regional programs do not mean an end to local initiative or submission to a super-power--if proper safeguards are built into the program.
7. Professionalization of education on all levels must occur if a quality educational program is to be offered. No matter how much media, or number of facilities or increase in educational services, progress cannot come without an increment in mature professionalism. This includes the ability to work with colleagues--cooperation. A regional program involves all levels and all kinds of resources, thus there is little room for provincialism and selfish empire-building.
8. Seventh-day Adventist colleges can play a very critical role in the improvement of the schools of the denomination. In order for this to transpire there must be much closer coordination of activities within the schools of the church. The "each school going it alone" approach must yield to a more enlightened situation. If the public schools in many areas of the nation feel they cannot do it on their own, how much more should the attitude permeate Adventist thinking.

9. The conference office and it's officers must become members of the total resource team. This is more than just the superintendent. Education is much more than many think. It's resources cover all fields and areas and this includes the church. A large proportion of the conference personnel are involved in education in one way or another, thus they should cooperate in coordinating the entire program of the church and it's educational mission throughout the conference and among other conferences.

10. Many resources no doubt exist of which others are not aware. Communication via personnel, newsletters, union catalogs, etc. has done much in the past to bridge this gap. This does not require a great investment in means, but primarily communication and coordination.

11. Special education is virtually unheard of in the Adventist school program. The solution within the circumstances is far from easy. Independent approaches are doomed to practical failure. Cooperative action is the only way and if kept within the denominational system it can only be a partial solution.

12. Counseling and guidance programs are generally weak. On the elementary level they are almost non-existent. Yet this report has opened up some possible avenues that might be explored. Regional programs, and many phases of such programs, can go a long way in establishing a basic program. There are intrinsic values in the small school with the

close pupil-teacher relationships. As brought out many times, these characteristics should be capitalized on but done in conjunction with other schools via a cooperative or R.E.S.C.

13. Though the health education concept is strong in the teaching of the church, in reality it has not been fostered as much as it might in the denominational schools. Professional health educators are not numerous, especially in the formal school organization. Health services in the schools has not been what it might. Regional and cooperative programs have done much in public schools. What might such approaches do in Adventist schools?
14. It is apparent that the liaison between the various schools and levels of schools as well as other components of the denomination is weak. It also is noted that improvements are being made and that the administration is becoming aware of the problem. The concepts noted in this report are considered worthy of study and possible application in varied ways.
15. The Seventh-day Adventist church and it's schools are definitely conservative. When it comes to matters of spiritual and social issues this posture should no doubt be retained, however, when this conservatism involves administration, technology, organization and the general educational climate, then they should be the "head and not the tail." The R.E.S.C.

movement is a growing one and thus a progressive concept should be given close study.

CHAPTER 26

GENERAL RECOMMENDATIONS

The cooperative/regional concept is a broad one. The idea is manifested in many forms though the regional educational service center is the most typical. Let it be clear that the R.E.S.C. is not a clear-cut entity. It utilizes many avenues and covers many and varied populations. Though the R.E.S.C., which is a relatively full-service facility serving a pupil population of from 10 000 to 25 000 within a one-hour driving radius is a common type of unit, it is not the only type. Many specialized centers are also found about the land. It is needful to fully understand this concept and not fall into too narrow an interpretation of the R.E.S.C.

Applications to the Seventh-day Adventist schools will of needs have to take into consideration all kinds of such endeavors for the simple reason that the total enrollment of all North American schools is equivalent to that of many single regional areas (or intermediate districts). In a sense the entire North American division will have to be considered as a region in many ways though this does not rule out the utilization of relatively full-service facilities in some areas.

It is apparent that the R.E.S.C. concept and the school district reorganization program go hand in hand. Though it is possible to have a cooperative program without it, it is virtually impossible for the concept to be fully realized unless administrative reorganization is accomplished. Even as this has been true in public schools, it is probably just as true in essence within the Adventist schools which have been without any real district organization.

The first portion of the recommendations are geared to the entire program whilst the latter portion is directed to the areas under special study in this paper though the principles involved would be applicable to similar areas.

The reader is advised that some of the recommendations being offered are already partially being implemented or are in action currently but must be included in order to present a total picture of the concept. Since this paper was commenced progress has been made in some of the areas being presented, thus giving the writer some encouragement as to the possible positive benefits to the ideas involved in this study.

The writer is not so naive as to believe that all that is presented is ready for immediate implementation. Much discussion and planning must occur prior to each step of the route. It is hoped that the ideas presented, which are based on years of study for this paper, will be a positive contribution to progress within the church's school system.

Even though this paper is primarily involved with education, it should be remembered that the Seventh-day Adventist school system is an integral part of the total denominational structure and thus must be considered to some extent as a whole in its needs. It is thus that the recommendations of this paper must take them into account or it would defeat the very thesis of the paper. Quite obviously the emphasis will be upon the educational phases, but inasmuch as so many of the functions are inter-related, the other will play a vital role in the recommendations and the total understanding of the recommendations being suggested.

1. Districts and regions

Inasmuch as the church and the school are one and the same in patronage, for all practical purposes, their interests should be considered in the provision of districts and regions. In many cases various districts and regions have already been structured for union schools, Dorcas-welfare groups, youth organizations etc. It may be that many of these can be utilized as a base for units such as those outlined in this paper. Quite obviously these districts and regions should be based on natural division lines, interest areas, population concentrations, etc.

It is quite possible that various districts and regions will be required for different services and administrative functions. It is suggested that the organization of the Adventist districts and regions be both administrative and service oriented inasmuch as the populations involved are relatively small and facilities and personnel would normally be in short supply and duplicate organizations would be costly and most likely an inefficient utilization of all resources.

It is suggested that districts be devised which shall incorporate all the churches involved in supporting a single church school or junior academy (an elementary and/or a junior high school). These are frequently called union school districts in denominational circles. In some cases one church operates one school and as such would be a district. These districts would cover an area in which the driving radius would generally be a minimum of a 15 minutes driving time and a maximum radius of one hour driving time.

Several districts combined would comprise a region with a driving radius of one to two hours. If the church population warrants it, a secondary school should serve the needs of the region and in that case a maximum driving time of one hour would apply. In some areas it would warrant but a nine or ten grade school and in such situations the older pupils would of needs utilize the conference boarding academy.

A regional superintendent would coordinate all formal educational activities within his region, including primary, elementary, possible middle schools, junior academies and the academy. He would have administrative power though the rights of all subordinates would be protected by various policies to be formulated. These would need to assume the professional status of all teachers and educational personnel with credentials. This superintendent might be full-time or more than likely be principal of one of the schools and have released time for this responsibility. He or she would be a credentialed administrator with administrative experience and professional education background. This is no position for amateurs or other professionals.

Each region would have a media center with a collection available to all schools within the region or to other regions for that matter. A union catalog would be developed so all schools would be aware of holdings at each school. The regional media center would have a professional media specialist to coordinate all media services within the region. This professional would assist with all library collections in the region, either as a consultant or actual librarian on a rotating basis. In any case each school would have an appropriate collection, properly cataloged and housed.

The school board would be represented by each of the districts within the region. It would be a policy-making board but not an administrative body. Each district within the region would have an advisory school board with certain delineated functions. The desire is to limit local control but yet not stifle local initiative. As it is, local church schools, especially the smaller ones, are very unstable. Teachers are subjected to conditions that are not desirous and thus most teachers seek the larger and more stable schools. This is obviously not educationally sound.

The regional office might also be a district headquarters. Most likely it would be located at the largest school in the region. In any case, facilities and personnel would not be duplicated unless it was to the good of all involved. It must be remembered that the purpose of this organization is to increase the quality of education as well as to reduce the costs where feasible. The two are not diametrically opposed goals.

Specific suggested districts and regions for the geographical areas under study will be listed later.

2. Division of administration

In order for the various recommendations of this paper to be amply implemented, it is suggested that there be a reorganization of authority so that the various professionals are equals with each in authority within his or her professional expertise. It is quite apparent one or two professional fields do not have the background to administer all fields within a very complex denominational organization.

It is suggested that each region be considered as an administrative unit and where membership and enrollment so warrant, that the districts be similarly organized. Each region would have a basic executive committee of three professionals with the chairmanship of that committee rotating from year to year. The three executives would be equals in rank, each offering direction within his or her field of expertise.

The executive committee would be comprised of a religious director who would be a credentialed minister, a business manager who would be a degreed business administrator, and a regional educational superintendent with credentials in administration. Where a region could not afford say a business manager, several regions might cooperate in hiring such a person, as is done in public school regions in some areas. Similarly some regions might be large enough to have additional professionals in other areas, most likely in the field of health if a hospital or major clinic were located there and possibly a publishing representative if a publishing house were located in the region. Generally speaking, these interests would be represented on the conference level.

The regional educational superintendent would be in charge of all schools within his area. If a college were located within his region, he would not be in control of the college, but he would work in close cooperation in the utilization of all resources. The entire idea of the suggestions of this paper revolve around "cooperation" and the extinguishing of the self-centered approach of "this is mine and that is yours." This is provincial thinking and has no room within Christian circles! Much of the inefficiency that plagues the church is rooted in parochial thinking and possibly even in un-Christian attitudes that border on selfishness. This must go for there is no room for self-centered thinking and action. Christianity nor economics can afford such.

The regional superintendent would be in charge of community education, drug education, health education and similar endeavors. On the conference level there would be professionals in each of these fields, or where a single conference could not afford such personnel, there would be shared personnel. Again, for whatever the organization and on whatever level, ultimately the program should be directed by a specialist within the field. While locally and regionally a more generally trained educator and minister might coordinate these fields, a professional should coordinate further up. Drug education takes a specialized professional, as does health education, though a dual field might be handled by one trained in both drugs and health.

In any case this is no place for a general educator or general minister with a smattering of background courses or even an interest and adeptness.

Wherever possible these specialized fields should be available on the regional level. It is unwise for a person to spread himself too thin and into too many fields. By sharing personnel resources via a regional and district organization it is felt that better service can be rendered. It goes without saying that this takes a coordinated effort, thus the suggested regional and district organization along with some realignment in the conference.

The business manager should be more than just a business manager in that he should be trained in church and school management problems. This person should be knowledgeable in fund raising, Christian stewardship, public relations, purchasing etc. He would care for the business interests of the region. Where possible similar managers would serve the districts. The idea is to relieve the ministers and principals of the burdens of accounting, purchasing, fund-raising, tuition collections, billings, public relations, press relations and similar non-pastoral, non-educational duties. Where needed, additional staff would be added with responsibilities in specialized fields. Where the business manager can not be retained on full-time basis, he would be shared with another region. This concept would be utilized in any situation involving personnel, materials, equipment or any other resource.

It is further suggested that the business manager coordinate personnel, do liaison with the conference office in personnel administration, assist in recruiting volunteer help and similar duties. This would be of paramount help in the use of library assistants, paraprofessional volunteers, volunteer professional and craft workers, etc.

He would also coordinate transportation for school busses, church bus operation (using the same busses for both, probably), coordinate deliveries, arrange for moving vans through the centralized office of transportation, care for lodging of guests and consultants, arrange for public transport tickets, etc.

It is very likely that accounting would be done on a higher level with data processing equipment. However, for whatever the best approach he would be responsible for the coordination of procedures. A centralized computer would most likely be used for many of the procedures inasmuch as accounting procedures would (or should) be standardized for internal as well as external audit efficiency. It is very likely that this office would help to standardize and bring efficiency into this field.

He would also care for all purchasing via the pool purchasing program that would be international in its resources via the General Conference and all subordinate offices that would be scouting offices as well as liaison for the various levels of administration in regard to purchasing, warranties, maintenance, etc.

All custodial and maintenance work would be channeled through this office or its subordinate offices. In some cases the district might handle a major portion of this work, depending upon local resources and size of the district. In any case the chain of command would be in effect in order that every kind of economy and efficiency might be gained. Many types of maintenance of a specialized nature might not be available locally, thus shared programs would be necessitated between regions, such as in audiovisual repairs, refrigeration repair, automobile overhauls etc. A skill bank of craftsman would be on hand for difficult jobs. Where feasible full-time men or part-time men would be hired by the church. Volunteers would be utilized, obviously, wherever possible. Possibly programs could be worked out for tax relief for these volunteers.

The business manager would be liaison for all legal as well as tax matters. Even though he might not be an expert in these fields, he would be better versed than the typical educator or minister. That which he could not handle would be sent on to that level of administration which has such an expert. Typically the conference would have a general lawyer, though even here specialists would need to be retained for special fields.

3. Conference realignment

No major changes are suggested within the conference organization. Generally it is suggested that each office be staffed with a professional within the area, such as a professional church administrator for president, a religious educator for youth activities director as well as Sabbath School secretary, etc. This overall professionalization of the staff on all levels would be possible because of the overall cooperative/regional program. Much of that suggested is that of relationships and organization and not of major reorganization.

It is suggested that the local conference Youth Activities, Sabbath School and Education secretaries work as a sub-executive committee for the furthering of the educational work of the conference. They would work closely with regions, districts, local churches and pastoral districts (where one pastor serves several small churches). The three departments have so much in common that they must have the closest of cooperation in order to have a complete and orderly program. This is also necessary to cut down on duplication of programs, duplication of material preparation, and similar inefficiencies as well as deletions of what might be done. If a health secretary and temperance (drug-alcohol education) secretary are on the staff, as they should be, then they should be on the sub-committee, also.

Where it is possible it is suggested that professional health educators be health secretaries. No doubt having a physician or nurse as medical or health secretary is better than say a minister, but if the emphasis is upon health education, then professionals should staff the office. The same is true with the so-called temperance secretary (drug and alcohol education), a term that is a bit outdated, it is felt. The person(s) holding this position would of needs work closely with the educational personnel of the conference. They could coordinate the health services of the schools with the aid of volunteers or part-time associates in the various regions and/or districts.

The health education program at Loma Linda University is currently graduating many capable personnel in this and allied fields of preventative medicine, public health, etc. These graduates, along with related health professionals have not begun to make the impact they might in the field of education, both in formal programs and in community education programs. Regional programs would probably have to be operated by volunteers except in the larger of the regions that could support a professional health educator.

The educational secretary of the conference should be a fully credentialed school administrator with special work in intermediate and state school administration. He should hold a master's, specialist's or doctoral degree in administration and have experience on various levels of education both as a teacher and administrator. In no case should he be a minister or a member of some other profession unless it be a dual-professional status. The superintendent must be an educator.

The educational secretary would coordinate all schools but the college within his area and even with the college, he would work as a colleague with the college administration in full cooperation in the utilization of all resources to their fullest, sensible limit. More will be suggested later in this field. One thing is certain: all levels of education must be coordinated as part of an educational continuum, not as three separate levels of education with little coordination among them, as exists to a greater or lesser degree now.

This office must have administrative authority with a minimum of interference from the president, secretary or treasurer. It is apparent checks and balances must exist for the protection of all. To assist in this there would be an executive committee for education as well as a conference school board to assist with policies. In each case power would not fall unduly upon any one person, yet sufficient authority must be invested in the professional administrator of education to operate the school system of the conference properly and efficiently as well as a truly composite educational program.

4. Conference educational secretary as a coordinator

It is recommended that the educational secretary (or superintendent as is commonly stated in many circles) devote his full time to school administration, even if he must cover two conferences, unless the alternate proposal were used. The youth activities director or secretary would do likewise in order that professional personnel might care for each field.

It is felt that such an administrative arrangement would be feasible where there is a strong regional program with professional administrators in charge of the regional program. In one way this would partially decentralize some authority and in other ways it would tend to consolidate more power in the region and less in the individual school. This should tend to stabilize the school personnel mobility problem caused by undue local interference from minority pressure groups. Such a program would evolve as the entire educational force gained dignity and professional status through strong leadership by professionals and the associated cooperation from a teacher corp that hopefully has internal professional growth to correlate with the administrative strength. It is an entire growth program in which the regional center plays a key role.

Though the number of regional centers would vary, each conference (usually a state) would have a half-dozen or so on the average. Each of the regional superintendents might share in the administrative responsibility of the conference secretary. Each of these men would without doubt have expertise in some phase of administration and would act as a consultant to the secretary and might carry certain delineated responsibilities, thus giving more depth to the overall administration of the educational program. One man would not hold complete power, but rather would distribute responsibility to his subordinates.

In a similar way many of the larger conferences have an educational supervisor who generally works with the elementary schools. It is suggested that supervisors might be eliminated as such and be replaced with consultants--though it might be the same person, just a change of status. Teachers are professionals and should be treated as such. All teachers should be credentialed and degreed and fully indoctrinated as to their professional status and ethical responsibilities. The consultant would assist the teachers. It may be that this position would be titled curriculum coordinator, but for whatever the title the purpose would be to assist in the curricular and instructional program, not to police.

It is quite apparent that each region could not have a consultant, though some of the larger ones might have a general coordinator of the curriculum. It is suggested that the consultant or curriculum coordinator, who would be a full time person, would coordinate the services of various of the teachers within the conference. Various teachers would be selected as the coordinator of this subject field or that field and be available for consultation to his fellow teachers. He would be allowed some released time for this duty. Most items would be cared for via letter, phone call or various in-service programs in the regions or within the conference. In emergency he might be called directly to the school, but generally the conference personnel would make the rounds and assist with on-the-spot problems.

In general the thought is that the personnel requirements are great within the conference and the component regions, but yet those who are actually available are few, thus each person's talents must be utilized to the fullest. Both the region and the conference would play a key role in bringing these skills to the surface. Without doubt skills would have to be tapped, in fact should be regularly tapped, from the union conference and the union college. In addition there should be interchange of personnel from conference to conference to assist with various problems. Skills should be put to use!

Instead of the conference secretary being an administrator or consultant to the president, he would become far more. He would be a full-scale coordinator of personnel, resources and materials. The entire conference and component regions, districts and individual schools and other institutions would be the overall resource depository to carry out the goals of Christian education.

5. Role of the region and conference office

It should be noted that many of the functions of the typical regional center as found in public circles, and as noted within this report, would not be feasible in the Adventist system. It is thus that many services would need to be conference-wide or on an even higher level of organization. In fact, as it is many services offered by regional educational service centers are not available from any source within the Seventh-day Adventist school program. Therefore it becomes necessary from shear necessity, to present services on various levels, thus the regional service center of the church may often be but an agency and not an actual provider of services. In many cases the region will be able to offer very little in services and even the conference office will be lacking in some fundamental services. The union conference office and college will then attempt to assist in these areas though even here some items will need to be under the aegis of the General Conference in Washington, D.C. or in some western, central or western center.

Even though the entire pupil and student enrollment within the United States is less than 100 000, certain services will have to be offered on a more local basis because of logistics. As much as one tries, certain costs are fixed and with the limited enrollments in a given geographical area, costs can not be reduced beyond a certain minimum, though every effort is expended to bring efficient management to the program. Of course there are many and varied ways to better the situation of which the regional approach is but one, though it is inter-related in many of the other solutions in one way or another.

Without doubt there will be need for much sharing of resources within regions, conferences, etc. Not every region, for instance, may have complete facilities for certain audiovisual production, possibly only one center will be so equipped. In another situation another center may specialize in another phase of service and share with others. There is no sense in duplicating services if communications are such that one or two might serve the purpose. Personnel, facilities and materials must be used as thoroughly as possible within the limits of the budget and the general program. Therefore the service will be offered, where it can be justified, and then serve as well as possible the area under its jurisdiction, plus others that cannot justify the service.

In the smaller conferences the role of the regional center will be minimal at this juncture as far as actual service functions are concerned. Most service functions will come under the conference and union conference of necessity. The region will still have its place as an administrative center and as an agency for services that cannot be offered.

6. Role of the colleges

First it might be well to state that this writer is heartily in agreement with the general actions of the Board of Higher Education. Though in its infancy it already has done much to coordinate higher education in the North American Division. It has reduced duplication, increased productivity of the colleges and two universities and brought about many similar actions that definitely tend to increase the efficiency of the system. This is in the right direction.

There are some questions that eventually need to be answered in order for there to be a more complete streamlining of operations. As has been pointed out, there is little liaison between elementary schools and secondary schools and similarly little cooperation between secondary schools and colleges. Obviously there is some communication but it tends to be minimal and hardly what one might call a smoothly operating total system of education.

It should be considered that in the last few years many colleges have had to close their doors because of financial pressures and reduced enrollments. Adventist colleges have been caught in the squeeze and though only one in North America has closed, yet many are in financial pressure. There also appears to be somewhat of a reaction against higher education in that many people can get high paying jobs without the expensive and time-consuming effort. More emphasis seems to be coming in the post-secondary level courses that do not require a degree. Much emphasis is being put on the 80+ per cent of non-degree vocations. Even many professional trained people are being pushed into this job market. The overall picture for private colleges is anything but bright.

Several suggestions will be made that definitely would be of a cooperative nature and within the realm of "region" in its broader context, as it must be within the Seventh-day Adventist school system.

Already Adventist colleges have begun to emphasize vocational education, a field that has long been neglected. This should be expanded and every effort exerted to reduce the costs so as to make it possible for all who wish a Christian education in the vocational field. This program would of needs be under the jurisdiction of the board of higher education so as to give direction to the entire allocation of the various curricula.

Much needs to be done on the secondary level along this line also. However, vocational education and industrial arts education are very expensive and all Adventist secondary schools are small to minimal in size. It is possible that secondary pupils might come to one of the colleges for one quarter or semester for a concentrated vocational program. In this way the sophisticated equipment and trade-professional trained instructors would be available to both secondary and higher education students (or post-secondary, as the case may be). As it is much of the equipment cannot be justified unless it is in use for a full shift. Some pupils may have to travel further than others because of the allocation of fields to the various colleges, however, it at least would be an improvement over what is in most cases--not ideal, admittedly.

As it is the typical college is historically rather out of contact with life as it is. Ivory-towered professors are by-lines. It might be wise to make better use of their talents by giving them released time for consultant work within the union conference or even beyond when it is deemed of value. In this way they would be able to render service to the field, which historically tends to get wound up in the mundane and not keep up within the professions. In this way each of the areas should make a contribution to the other. Professors would see education and other subject areas as they pertain to what is, and the schools would be brought up to date with what is new and promising in theory.

The professors would also be more involved with field schools, in-service educational programs in the various regions and conferences as well as being more involved in fostering a continuum in education within their field through the various levels of education. This might help to bridge the gaps, the abrupt transitions that exist between the major levels of education. Verticle subject-centered curriculum committees might study the curriculum within various subject fields from the lowest levels up through graduate education. It would appear that the colleges should take a lead in bringing continuity to the curriculum. It is true that regional educational service centers often carry out this function, but within Adventist circles the total effort must cover vaster areas.

It may be that the college or some hospital computer within a given union conference should act as the basic unit for that area and be coordinated from that office. Regional business managers and conference treasurers would be prime users of the computers for business uses. Effort should be expended to bring order to the various accounting procedures so as to better utilize this cost-saving device and efficiency assistant--the electronic digital computer. This would no doubt assist the auditors also.

The college would also be in an essential locale to better bring the results of research to the local schools. The conference office and the regional center would be major units in this communication. Local schools are hardly in a position to implement what needs to be done in that they are caught up in daily existence. Hopefully the inclusion of the local school in an entire school system in which there is broader and more intensive communication as well as inter-dependence between it and the district, region, conference, union conference, college and General conference will in reality increase the quality of education without undue increases in cost. This should reduce the time lag between theory and practice. The R.E.S.C. would be a key component in this program from all indications of what has been done already in the public school programs.

The college would be the most likely source of help within the field of pupil personnel services and special education. First they could assist by coordinating efforts through the aegis of the union conference office, which should obviously be the center of educational efforts within that territory. Specialists in reading remediation, speech therapy, mental retardation and the many and varied other specialties might be made available, either professionals themselves or students in training as they obtain practicum in the field, or better yet some combination thereof. Again the logistics problem exists with each college usually covering several states within its service area. This approach is not simple, but it has some promise in that in most cases nothing currently exists. As soon as practical specialists in these areas should be made available via the conference or region. Till then the college is the most likely starting point.

As a whole it might be suggested that college students would benefit from more field work. Many of them voice their dissatisfaction with the highly theoretical base of their collegiate education. Local regions or districts might have regular apartments set aside for students in practicums, student teachers, educational interns and others who would be available on short term assignments. The transition must eventually be made from classrooms to the field anyway, why not put students into productive assignments on a regular basis. Again, the conference and region would assist in the coordination.

Very possibly the media field is where the college could be most helpful to the field. Few regions would be in a position to offer complete media services. No doubt there must be a coordinated program for media for the various areas but as it is no one is in charge. It is recommended that the college be the central resource center for not only the college, but the union conference. The role would vary according to the locale. In the Central Union and similar unions it would be critical and most comprehensive while in the more populous areas such as the Lake Union, the Pacific Union, etc., its role would be more specialized as the conferences and regions carried a greater share of the burden.

The college library would be a coordinator of cataloging, unless a General Conference agency took over the function. The suggestion in general is that it is foolishness for each school to catalog its own media. Most of the schools do not have the time and frequently not the expertise. This process along with centralized purchasing is a need if the full utilization of the dollar is to be realized. Most regions or conferences would not be in a position, to do this effectively. A higher level would of needs carry this function.

Inter-library loans between the various colleges as well as between academies and other schools should be fostered. These loans would be with all types of media. In order that each school might know who has what, it is suggested that computerized cataloging be instituted as soon as feasible, especially with the newer audiovisual items. Print catalogs then would be available for the various schools. The union college would be the agent for this service with the main local conference school, probably the boarding academy, being the next lower eschelon of resources. Where feasible the regional center would maintain a collection to be used primarily within the region.

The audiovisual department of the college would be the primary production component of the more sophisticated materials for that union conference. Lesser items would be produced at academies and regional centers, depending upon local resources and enrollments.

In that the college is the largest institution of education within each union, it has a key role to play in providing many services that are not available on lower educational levels. As smaller units of organization find it advisable, they might take over many functions but until then the college should become that supplier in that it is the prime institution. It is recognized that the college role as it is currently understood is that of higher education, period. These recommendations are that it be expanded to become the apex of an educational system, a segment of a closely knit organization. The college and each other school would become a service organization of the church, not just an educational institution, per se. It would be directly involved with the church in a much more forceful way than currently.

The concept behind this thinking is that each member pays into the organization and thus should receive the most for his investment, no matter from which quarter it comes from the organization. To think otherwise is provincial, if not plain selfish.

7. The role of the academy

The role would be somewhat different depending upon whether it be a day academy or boarding academy. If it be a day academy it would be the regional educational service center for that region. This will be discussed later. The boarding academy is usually singular within the conference, though there are exceptions.

It is suggested that the media component of the conference educational service center be based at the boarding academy in that it most likely would have the largest media collection and the most production capability.

Most likely the coordinative and general administrative functions would be handled via the conference office and it's extension, the recommended regional educational service center. In that the conference office is usually just that- an office--material type services would have to be based where there is ample warehousing, parking and general action space. It is thus that the boarding academy is suggested as a base for operations of a material nature in that it typically is the most completely equipped facility within the local conference. It should be kept in mind that the recommendations of this paper are not that new facilities be built, unless necessary, but rather that existing facilities be better utilized through cooperative action. In that the boarding academies are usually in rural locations with considerable acreage (area), they are the most likely spots for any centralized expansion of material services.

Each academy, boarding and day, would definitely have a full-time, fully qualified media specialist. If the personnel in this academy were book-oriented, then provision should be made for someone to coordinate the audiovisual work for the conference, be it on that campus, from a regional center or the adjacent conference. A general thesis of these recommendations is that properly qualified personnel should lead out even if the leadership need to be further removed with paraprofessionals working locally under supervision.

Audiovisual production would be dependent upon personnel and equipment available. A minimum inventory would include a high-speed cassette tape duplicator, a microfiche reader-printer, diazo and other transparency machines, slide duplicator, small I.T.V. unit (television), camera copy stand and camera, dry mount press and similar items. Possibly the microfiche reader-printer could be relegated to the college but a reader for microforms should definitely be available.

Many of the production procedures could be operated by secondary pupils if properly instructed. In-service workshops could be held about the conference or on campus for both teachers and pupils. Local regions would have coordinators to work with the conference media center as well as with the college center which would have facilities not available on lower eschelons. These might include litho equipment, enlarging cameras, sophisticated photographic equipment, quality audio equipment etc.

The media collection at the conference center would serve two main purposes, other than service to the academy per se. First it would supplement the collection at the various regional centers. Secondly, it would have to take the place, in some ways, of the smaller regional center that would be weak in media. This is typical of many of the public regional centers.

Standby audiovisual equipment would be available to care for breakdowns. Possibly the conference facility might have equipment maintenance for minor items while major items would go to the college center. No doubt some regional centers would have personnel available for repair, possibly on a volunteer basis. It should be remembered that a volunteer pool of resource people should be maintained.

Most likely the boarding academy would be the most likely location of the textbook depository. Rather than every church school maintaining an inventory of texts for the largest class going through that school, the books would be shared about the conference or possibly the region. Possibly a minimum of actual books would be stored at the depository, but an inventory would be there with major storage at regional centers. At the beginning of the year schools would pick up that which they needed from the regional office or regions would borrow from other regions close by so as to reduce transport costs.

Similar arrangements might be made with pupil desks with local storage at regional educational service centers, which obviously would have to have some warehousing area. Standardized tests might be also so utilized. This test service might be via the media center or the conference office. In a sense it would be immaterial for all denominational facilities and materials would be commonly owned and utilized to the fullest wherever they might be needed. Location and administration would be a matter of convenience and efficiency.

This center would also most likely care for sheet music for all school and church music organizations. As it is each church or school purchases sheet music for a particular performance and then proceeds to put it on a dusty shelf. This is poor utilization. As to whether to store it at the regional or conference center is immaterial as long as everybody can have access to it for bands, choirs, orchestras or similar groups.

Various types of specialized equipment is used in instruction for science classes, special units in various other subject areas, etc. By coordination of the program throughout the union conference the classes could be so staggered that the equipment could be used many times during its life expectancy rather than if it were used in but the one school. In some cases it might even be advisable to have the equipment in mobile units. If it would be used for a month or more at a given location it might be advisable to put it in a semi-trailer or mobile home type unit which is relatively inexpensive.

If it had to be more mobile it might be wiser to have it self-propelled. In any case it might be wise to coordinate this via the union-conference office if it were on the secondary level. If it would be used mostly within the local conference or region, then base it closest to the unit using it and administer it like-wise. A broad, unselfish approach to use would need to underlie this entire concept.

8. The role of the union conference

In the less populated union conferences, the union office would need to do much of that being done by local conferences in the more populated areas. In general coordination would be the key function of this office. The union college would care for the material services, as outlined previously. As it is now, the union could take a more leading role in the secondary institutions and the coordination of the program, however, the secondary schools of the conference must also be under the jurisdiction of the local conference secretary in order for there to be better correlation of the entire program, not only of the schools, but with the denominational program as a whole within that conference territory. Of course it is here that the conference president reigns--as a professional administrator specializing in denominational administration.

The union office would not only coordinate between schools in the local conferences, but would mesh this program with the college(s) of that union. Additionally he would be liaison with the General Conference Educational Department. Obviously each of the administrative levels would have their typical administrative functions. Throughout all these functions the cooperative spirit should be fostered. In a sense these recommendations are taking what is and putting more emphasis into coordination. In addition the suggestions are adding one more level, which already exists in some areas and in some phases of the church work, and making it into a viable entity of its own.

The union conference should do as should be done on all other levels and expand their horizons as to resources. Throughout the union all resources should be harnessed to their fullest utilization and most efficient operation. This should include the hospitals and publishing houses.

9. Summer camps and camp meeting facilities

As a whole the summer camp and camp meeting facilities are not utilized as completely as they might, though again there are exceptions. For instance in the West it is known that some camps are booked ahead for a year or so all during the year, winter and summer. Various youth groups, family groups, Pathfinder groups, etc. utilize these camps. Without doubt they are enjoyed by many, but it is felt that avenues might be used to further use them without an undue increase in costs.

Quite typically each conference operates a summer camp, either on its own grounds or in leased facilities. Some conferences have several camp sites about the state. During the summer months these are fully utilized. Some of them are winterized for winter use in sports, meetings, etc. Some rent to individual families of the church at minimum rates. This writer is in agreement with all these programs and has personally used them in this fashion. All this is good.

It is suggested, however, that each conference appoint one person, possibly the youth activities director or someone to work under him, either full time or part time, as an outdoor education coordinator. All the schools would have use of the camp facilities for outdoor education programs. Specialists would be available, either full time or as consultants, in the various fields of outdoor education. This program would be directly related with the Pathfinder Club and the other youth activities of the conference. Possibly some of the religious education directors in various churches, or regions would be available to assist in this. Again, encourage the use of professionals in the various fields to assist. If all is done on a individual school base this cannot be done, but cooperatively it can be done.

In some camps there might be a resident ranger who has obtained specialized training in this area. He might also double as the maintenance man in smaller conferences. However, let emphasis be placed on obtaining skilled personnel and then give the person the backing he needs in this critical service area.

Camp meetings frequently are held on the campuses of rural boarding academies where there is sufficient land for tent pitching and the parking of trailers and campers. As a whole this plan seems to have merit. Many, if not most of these locations have permanent cabins which are used but a few weeks out of the year. This utilization does not seem efficient. Obviously more people come to camp meeting than come to the academy. Possibly the efficiency can't be what it might be, however, a few ideas might be explored. If the organization of the schools were more closely related and the "school without walls" concept became the modus operandi, then more groups might be able to come to the boarding academy for short term institutes and course offerings and make use of the specialized personnel and specialized facilities that the smaller junior academies and elementary schools do not usually have. The cabins could be used for housing and the additional meeting facilities available could be further utilized.

These same facilities might be used more often by other church activities during the year, such as leadership seminars, dorcas institutes, etc. It is recognized that this is being done already in many areas. It is also noted that some use commercial facilities which generally cost much more than that which is already available. If a change of pace is needed, then exchange facilities with another conference or region.

It has been noted that some conferences have separate camp meeting grounds. It would appear that these would be inadvisable unless they could be utilized for the better part of the year for various other functions. As it is this writer has noted way too many facilities and materials being poorly utilized. They become outdated or rusty before they become worn out! It is probably better to wear it out through full utilization by all phases of the denominational program, school and otherwise.

10. Transportation coordination

To begin with effort should be made to curtail all unnecessary transportation. On the other hand the recommendations made in this paper will require closer cooperative effort which will require associated communications. This does not mean jumping onto a plane at the drop of the proverbial hat. Economies must be stressed and active plans made to better communications and increase utilization without undue increases in expensive public communications.

Though one can understand the need for pastoral and teaching changes from time to time, it appears to this writer that there is an excess number of personnel moves. It could be that too many unconverted Christian critics are at work and thus a small minority of patrons keep the situation in an unsettled position. This needs to change. It is hoped that some of the suggestions in this paper, if implemented, would lend stability to the program.

It is recommended that moving vans be owned by the union conferences and the entire fleet of trucks be coordinated via the General Conference. It may be that vans be located at local conference offices but again, for whatever the stationing of equipment and for wherever the administrative headquarters, all equipment is to be used for the mutual good of all denominational organizations. Many stories have been told of duplication of efforts in moving or part filled vans. This need not be.

Local conference personnel and regional business managers should coordinate transportation within their areas. If long hauls are needed for personnel moves or for equipment and materials to be sent to another area, then appropriate coordinators should be aware of which truck is going where and when as well as what room is available. All these moves should be on a non-profit basis.

Local trucks would be available for use of various organizations and would be under proper jurisdiction but available for any legitimate cause by denominational organizations. It should not be necessary to go through "red tape" for truck use or any other material and equipment or for that matter facility use. It goes without saying that regulations must be enforced etc. but no room for "this is ours" and "that is yours."

School busses would normally be under the aegis of the region, though again they would be available for other uses when necessary. The school busses should also be used for church bus use. It has been noted that some places use two sets of busses, which is foolishness unless there is legal reason for otherwise. It is the same organization isn't it? The same people pay for it all. Why duplicate?

The General Conference already has an insurance service with offices in Washington and the West Coast. Possibly this service might be further extended. Fleet policies should be available to church workers and possibly the membership. This is a specialized field, but it is suggested that every effort be expended to bring about economies and to bring these down to the various levels of the church.

11. Mobile facilities

As noted in this paper many institutions and corporations have utilized mobile units. It is recommended that study be made as to utilization of such units wherever feasible and practical. In general it is suggested that if a unit is to remain in one place for some weeks or months that the facility be stationed in a semi-trailer or mobile home type unit (heavy duty). If it is to be moved often, then a self-propelled unit is advisable. Obviously the latter unit is considerably more expensive.

It is recommended that each union conference have a series of semi-trailers or mobile-home type units for vocational and business education in such fields as graphics, electronics repair, business machines etc. These would be coordinated by the union conference and be rotated on a module of time basis. A tractor would be put into use for several days periodically to move these units from academy to academy, or from a junior academy. The same concept might be used in other fields also.

In some fields it might be advisable to have a truck based unit and make the rounds on a weekly cycle. This type of unit would be used for a bookmobile in some areas. Obviously such units would not duplicate services offered by the public libraries. Schools should always use services offered to them where acceptable and according to church and state principles of the proper separation of areas.

It may be that some special services such as remedial reading or health screening might be available via a mobile unit. Other types of services mgiht be investigated. Pre-school programs might be used in this fashion in areas where not enough children are enrolled to offer an adequate program otherwise.

In some situations it might be advisable for the teacher to drive to a school and station the appropriate facilities. Cost studies should be made as to both approaches. Itinerant teachers might drive conference fleet automobiles. These vehicles would probably be part of a motor pool.

12. Summer duties of educational personnel

In the last several years many progressive conferences have attempted, and quite successfully in most cases observed, to place educators in fields that would be utilizing their skills during the summer months. This has included summer school at college, curriculum committees and where the teacher is interested, in summer camps as a non-counselor.

It is being suggested that teachers be placed in some cases in the regional, conference or college media center to assist in the production of materials, selection committees, research committees, etc. Most colleges have a teaching materials center that would benefit much from the help of practicing teachers. Various files need developing in which a teacher would be a great help. Of course this same assistance could be used on all levels in the betterment of the school system as a whole.

The regional center as well as the other centers might have in-service seminars during the summer for working teachers. Various teachers themselves might share their skills under the aegis of the educational system.

Where curriculum committees are meeting, they should be under the overall coordination of the General Conference. The resultant study should be made available to all schools in the system, where appropriate. There is little sense in duplicating effort, especially under the idea that "we must keep the teachers busy." There are far too many basically necessary and worthwhile activities to waste time on duplication.

For whatever the assignment of summer duties, let it be that which is not demeaning. There is no wrong in occasional menial work, but it is a waste of talent to do this in excess. As it is, it is said the typical teacher spends 40 per cent of his time in non-professional duties. This is waste. The regional center and the reorganized offices as a whole can do much to rectify this.

13. Paraprofessionals and technicians

As it is, most schools do not have ample assistance for their teachers or principals. It is felt that by cooperating, especially via a regional educational service center, some of this deficiency might be corrected without an undue increase in costs.

Inasmuch as most local teachers and principals are too busy to go beyond the routine, it is suggested that the regional superintendent have ample time to properly coordinate the educational effort of that region without being tied down to trivial items. The more coordinated system as suggested in this paper will hopefully make this more possible. Various duties will be sub-contracted as it were. Various duties will be distributed to those with the appropriate skills.

This concept goes for the paraprofessional as well. Trump has demonstrated how this can be done and yet do it within the same general budget. The regional center, it is suggested, will be the coordinating office for the utilization of office clerks, readers and checkers, teacher aides, library aides and other paraprofessionals. They would also coordinate the custodial services and landscape services of all institutions in the area. Even in this area adequately prepared personnel can bring efficiency to the work. Specialized maintenance workers would either be hired or be on call, paid or as volunteers.

Volunteer services as a whole would be coordinated from this office. Specialized skills would be double listed, where acceptable, with the conference office or higher eschelons. Many people would no doubt be willing to offer their expertise to the denomination, but it must be done with ample communication to all personnel involved.

14. Church and school facilities

Though this paper is emphasizing the wider issues of education as they relate to cooperative and regional programs, the following recommendation is given as a facet of the entire concept of cooperative action, thus giving a more complete picture.

Typically the church is located in a separate facility from the church school. In some situations the church school is located in the church basement or added, apparently, as an afterthought. The church is utilized for several hours out of each week. The Sabbath School rooms, which comprise about half the area of the church, are used for about two hours out of the 168 hours in a week. This is hardly a wise use of facilities. The mimeograph machine is used to print two pages each week with an additional handout from time to time. The parking lot is used for several hours out of the week and so the breakdown could be recited. All-in-all the church is a poor financial investment for it is used very little. Now obviously there are theological purposes that are of high priority and associated arguments, but the fact is the premises are not being adequately utilized.

It is suggested that the church be designed as an operation that would be in action daily. The thought is that Sabbath School rooms be also designed for use as week day classrooms. A folding wall of drapes could change the atmosphere and protect the week day activity spots from the week end program. Special cupboards could be designed for Sabbath School equipment and supplies. Rest rooms would be used for all activities as would the social hall in doubling as a gymnasium and careteria. The only facility that would remain as a relatively short usage unit would be the sanctuary and that might be used as a school chapel. The playground would also be a parking lot and of course there would be one graphic duplicating facility--not two.

This approach would not be ideal. However, the overall savings and increased convenience of having more for the money, should offset the negatives aspects. Much of this type of planning would involve a general organization problem.

15. Regional meeting facilities

It is suggested that each region have a meeting hall available that would be appropriate for regional gatherings. This might be the gymnasium of the day academy or a separate auditorium. In some cases it might be better to rent a facility, depending upon the locale and rates. A centralized facility is necessary, in particular for the youth gatherings.

Arguments have been brought out in this paper for decentralization of education and yet for consolidation on the other. The two movements are not in opposition, either in regards to education or the church, which in the case of the Adventists are basically one. It is suggested that the small churches and small schools capitalize on their uniqueness. However, there are disadvantages, as have been brought out. It is here that the district and region come into focus as a rallying point, a service center, a meeting place, an administrative office for coordinating the satellite institutions. The goal is harmonious action within the membership of the region, each working towards the good of the other and in turn receiving major benefits from better services.

16. Boards and committees

As it is the local school board is a mixed blessing. It is true that local control is desired and this has much to be said in its favor--and disfavor. Overall it is thought that the disadvantages outweigh the advantages. It is felt that the local school board should be an advisory board with certain limited powers to handle local problems, but not general policy and in no case to take over the administrative powers of the principal. The major school board should be on the regional level, as suggested in this paper. This would encompass a K to 12 or K to 9 or 10 school situation, or some similar combination of levels. The idea is to have a total school program for the region, not a fragmented operation up to the whims of local pressure groups or even sister Smith. Financing would similarly be on a regional basis, if not conference-wide basis. Emphasis would be upon a complete program for all Seventh-day Adventist youth. This would seem best implemented by a strong, representative regional school board, with local school boards being limited in their perogatives so as to forstall parochial attitudes and the general low quality education that too frequently ensues.

All regional educational superintendents would be on a committee or cabinet at the local conference office. The Secretary of Education would be chairman with the regional superintendents and any additional consultants in special fields etc. as members. In this way one man or so in the conference office would have a multitude of counselors and thus negate many problems.

Similarly the Secretary of Education would have another committee, or possibly the same committee, in which the Sabbath School Secretary and Youth Activity Secretary would add their wisdom and assist in coordinating the educational work. There might be additional conference secretaries from other departments, such as drug education, health education, etc., who would be members of this committee.

It is possible that a conference school board should be in existence in which there would be lay representation from the various schools and regions. All these general boards should be varied in their complement of personnel.

17. Selection and pool purchasing

It is recommended that the purchasing of all types of materials, equipment and facilities be put under the jurisdiction of specialists in these fields. Quite obviously it is not suggested that those to use the items under question are to withdraw all interest in selection and purchasing. It is suggested that the relatively haphazard approach be bettered.

First an expert pool of advisors should be appointed. These persons would be all about the country, maybe outside of the country. Each special area in which purchasing needs to be made would be represented by selection advisors who know "what is what" in their field of products or services. These individuals would be conversant with good points and bad with specific products and models. They would not all need to be educators or even denominational employees, but rather any expert willing to share his wisdom within his field.

A centralized agency would collect the advice periodically, yes continuously, and categorize it. Various denominational personnel involved within the said fields would receive a bulletin with the frank appraisals and suggestions of various products and thus be able to make more intelligent decisions.

It is quite apparent that no one person has the expertise to make purchasing decisions in all fields, especially in as wide an area as education, medicine, publishing, housing, food handling and preparation, transportation, etc. It takes many experts. Even within the field of audiovisual education there are so many specialties that no one person can keep abreast of developments and critical evaluations thereof.

It is recommended that the General Conference coordinate the previous suggestion as well as in the buying field. Better prices can be obtained by the big buyer. Independently one must buy at the higher rates but as the quantity increases the prices go down. This is a truism that is very apparent to anyone who has ever done any buying. Thus all purchasing of any amount or magnitude should be channeled through this office or subsidiaries.

This approach would not be good for impulse buying, however, generally speaking this is not the kind to be done by professionals. Each regional business manager would be responsible for major purchases of his region. The conference personnel would also be involved, as well as union conference personnel and the various large institutions. This should all be part of a network. Overall the cost savings should be, if they follow most similar programs, into the millions of dollars annually--well worth the slight inconvenience of channeling orders through appropriate offices.

Users of the various products might fill in critique forms of their appraisal of the product and share this critique with similar users. All should benefit from this cooperative selection and buying program.

18. A balance of materials and facilities

As has been mentioned, the denomination has some unique problems that cannot be equated with the typical regional educational service center and its services. Some of the services must be of an international nature while others are on a national level, some state-wide and some on what is commonly referred to as "regional."

Because of the distances involved, some equipment, facilities and materials must be stationed in an area in which utilization is not efficient and not much can be done about it, at least in a practical fashion. As things exist, however, there are many items in these categories that could be better utilized if there were a common fund of resources and a sense of cooperation equaling that of the public institutions, yet alone that of Christians following the early church practices of cooperative action.

No doubt as this concept evolves, assuming the acceptance thereof, there would be need of inventorying aasets and then determining the best location for the most good of all concerned. For wherever the deposit of the item or the location of a facility, it should be common knowledge that all denominational programs and institutions would have access where there is a need. Proper arrangements would have to be made, obviously.

New items would be purchased with all aspects of the community and region in mind, possibly beyond the region. There would need to be a continual weighing of values and investments to see that each item filled a need and could be utilized to its fullest, within reason and within the context of the overall milieu. As it is there are many investments of questionable value and very limited usage on a local level. It is here that the regional center could coordinate such purchases and utilization thereafter. A similar process would occur on the various conference levels.

19. Alternating courses and the media and facilities field

As it is the denomination has been using the alternating course idea so as to offer more courses over a period of years. This has been done on all levels of education. Elementary schools have odd and even ending years and associated texts for those alternate years. Secondary and collegiate schools offer various courses on two or four year cycles.

This process has been reasonably successful though it is common practice to offer certain basic courses annually. It is recommended that this procedure continue, however, not just to increase the number of course offerings and to achieve greater utilization of personnel, but to better utilize facilities and media, in addition.

The alternating process could be a compound procedure, as it were, with the academies possibly alternating with certain lower-division courses in the union college in the use of certain equipment and associated media. In this way at least some of the equipment could be put into more complete usage. The same general procedure could be used among the half dozen or so academies within the union.

Off hand it would seem logical to have the schools alternate their courses but with the high mobility of the population this might bring on more problems that it would solve. It would seem appropriate for the classes that could be taught in a non-sequential matter, such as physics, earth science, etc., to be staggered within the single year the course was being offered. Academy one would have magnetics first, academy two would be on light while academy three would be on mechanics, etc. The modules of time would be of a month, six weeks or combinations using a smaller basic module of possibly two weeks or a month. The courses would be scheduled as a pupil would schedule his classes so as to have a complete program.

Possibly enrichment courses, career awareness courses and similar elective type courses could be alternated among the schools over a two to four year cycle, but the basic curricular courses should remain on the same cycle. Mobile units that were equipped appropriately would make the rounds of the schools. In other cases the equipment and media could be shipped in for the duration of the course or unit of the course.

Various multimedia kits, videotapes or videocassettes and similar media could be scheduled for major units or courses that used the alternating approach. Instead of each school attempting to obtain all the equipment and media for all the courses ever offered, they would purchase collectively. Within the elementary schools much of this could be done through the regional center. The junior academies would have to use the conference center as well as the union college center, while the academies would need to work on a union conference basis in that there is usually but one academy per conference, except in the larger conferences.

It should be kept in mind that the independent study movement is very strong with all types of ramifications utilizing various resources on many levels. The section on the curricular trends indicates a great need for back-up resources for these pupils in their individualized study programs. Nongraded schools demand similar resources, not only from media but from consultants and other services that a regional center could offer or act as an agent for a higher unit. In any case virtually all instructional and curricular trends indicate a need for a broader base, not a narrower one.

20. Allocation of media production facilities

Much of the allocation of media production will evolve with local and regional needs. There are some initial suggestions based upon the experience of others in relation to the Adventist situation.

A. All major television and film productions should be made at the new Thousand Oaks media center in California where they will have the sophisticated equipment for such productions as well as the personnel to produce such material. In addition, minor productions which are made at the colleges and universities that are to be produced in limited quantities should be reproduced here, unless the equipment required for the process might more efficiently be located at one of the other locations, such as a college media center.

B. Minor productions produced by dramatics classes or material for televised instructional lessons might be done at collegiate media centers. The sophisticated equipment should not be duplicated unless it is to be used for classes and those classes should not be held at all the colleges, but according to the recommendations of the Board of Higher Education. Obviously the allocations of curricula and courses would be dependent upon the demand from students and thus attendance would be adequate to be efficient and worthwhile.

C. The Thousand Oaks facility should probably care for high production runs of cassettes and tapes, as well as disc recordings. Possibly several of the collegiate institutions could have rather sophisticated audio recording facilities and possibly some high speed cassette duplicators. One sure thing would be the overall coordination of effort in this field, as in all major audiovisual efforts.

D. ERIC (Educational Resources Information Center) collections should be at the two universities (Andrews in Michigan and Loma Linda in California), as an initial step. Microfiche duplicating facilities should be at each of these institutions to serve the other institutions in the country as well as overseas. All colleges have microform readers and many have reader-printers. It is suggested that a reader be available at each regional educational service center.

The complete indexes for Research in Education, which index ERIC, should be at all the locations mentioned, as much as practical. Researchers, in-service educators and others would have access to the ERIC documents for a very minimal cost. As the need increased, it is possible other colleges would obtain complete ERIC collections.

E. These same two centers plus the General Conference might find it advisable to have microfilming facilities. As the field develops possibly one microfilming unit should be in each union conference to care for school records, conference documents and similar bulky but valuable materials. All church papers should be put on some form of mutually acceptable microform and be made available to all major educational institutions.

F. The Thousand Oaks center should be staffed with professional artists, actors, cinematographers, graphics specialists and other personnel needed to produce top rate teaching aids. These items should be produced wherever a sizeable savings might be made over commercial sources. In addition special items of unique interest to the denominational educational program should be produced. These items should be sold on a strictly non-profit basis to the Adventist schools. It should be remembered that one reason audio-visual items are not used as much as they might be has been the high prices.

G. Inasmuch as transparencies as used on overhead projectors can be produced for pennies when produced on lithographic equipment, one of the colleges should act as coordinator of production of transparencies. Obviously some types of transparencies might be better produced via diazo or some other technique. Again the two major categories of media might be produced: (1) specialized materials for denominational schools, (2) items that can be done at considerable savings over commercial sources. These items would be available to all Adventist schools in any location. The idea is not to enter commercial business, though there is probably nothing wrong in so doing.

H. One or more institutions, or for that matter some regional educational service centers, should coordinate slide and filmstrip production. Possibly one unit would be overall coordinator with other units specializing in some field. The main center would communicate and disseminate, either directly or via the sub-centers. As it is, it is difficult to know who has what. Much of what is available is being sold on a profit basis to member institutions, which tends to defeat the overall purpose. The various member institutions should be on a non-profit cooperative basis.

I. A General Conference office should coordinate all audio-visual activity. This should be a cooperative venture not a dictatorial pronouncement. It goes without saying that those in the capacity of coordinator should be professionals in the educational media field with specialization in audiovisuals. Each specialty represented should be staffed by a specialist within that field.

21. Surplus media coordination

Each union college might act as a clearinghouse of surplus media. This might be material from within the denominational schools or gifts from individuals or concerns. The materials might be inventoried but housed in various schools or a warehouse facility might store materials till properly allocated. Items gained could be reallocated to schools not having the items available or sent to overseas schools. Possibly the General Conference might appoint a coordinator for overseas shipments as well as initial clearinghouse activities. Personnel might be appointed for the various interest areas, such as social science, science, etc. as well as for various grade levels: elementary, junior high, secondary and higher education. Specialists might also work in the various media areas also. This might not entail any added personnel, other than the top personnel. Otherwise people at various locations with expertise in the various media, levels or subject fields would act as coordinators in conjunction with their current appointment. Volunteers no doubt could be enlisted to help with packing, shipping, etc.

22. General Conference Associate Secretary of Education for Media

It is proposed that an associate secretary for media be appointed by the denomination to coordinate and instigate programs in the various fields of media. Possibly an assistant to coordinate and promote the print field and an additional assistant for the non-print field might be added as soon as practical. Possibly the current General Conference post of audiovisual director might be a joint appointment or in any case a close liaison should exist between the two areas. As it is such evidently does not exist between the educational media field and the General Conference.

Various of the coordinators suggested within these recommendations would work with this secretary and his associates.

It is possible that a similar post might exist on the union conference level, even though the holder of the position had to carry other duties. For whatever the combination of assignments, the personnel should be professionals in the field of media. The chain of personnel would follow down through the various organizational levels with a specialist in each situation leading out in the field of media. This same philosophy of administration and coordination should be found in similar fields also with the regional educational service center being the lowest complete administrative center and the elementary and secondary schools being components of that region.

23. Assignment of personnel and the place of the regional educational service center

A data processing facility should be available to the General Conference, as no doubt there is. Most of the major institutions of the denomination have such facilities. A personnel listing should be entered in the data banks of all available personnel in all fields. The education department should have ready access to this file, as well as all subordinate organizations such as the union and local conferences. The regional educational service centers would have access via the local conference office.

The allocation of personnel should be a national cooperative concern by which specialized skills are utilized to their fullest, within the context of needs, openings and desires of the employee. This same process should be carried on within the region in close cooperation with the conference office. As it is currently many skilled personnel are not being utilized to anywhere near their fullest potential. In many cases a person spends less than a majority of his time within his field of expertise, which is a waste of manpower as well as a waste of money in that training has been obtained but is not being applied fruitfully.

The local regional educational service center is probably the most logical place to improve in this field in that the employee is known as a person and not as so many bits of data input for the computer--though it is acknowledged that this input and the accompanying outputs in print-outs etc. will give the raw material to better utilize that which exists, sometimes skills unbeknown by fellow colleagues. If the recommendations of this paper were implemented in principle, the region would give a more solid base for intelligent utilization of all resources, including personnel, both denominationally employed and non-denominationally employed. A closer, more effective team with team-spirit would be the hoped for prize of cooperative action within the region.

To be more specific a girl's physical education teacher who might teach but 30 per cent of her time in her field in a small academy (high school) would be hired for the region as a full-time teacher and coordinator within that region. Most smaller elementary schools could not afford such specialized help or even have access to a consultant to assist them in their work. In most cases there is a consultant (supervisor) who is expected to help with every subject and a host of other duties in addition and that for the entire conference or even union conference! A few visits each year is about the best that can be expected. It is felt that the recommendations given here would improve that situation, but only if schools worked together as a whole, not as separate organizations up to local whims and financing. A more stabilized situation could accrue and an improved instructional program would ensue. Yet the costs should not increase excessively in that that which is available is being better utilized.

The concept presented could be applied to every other field, as needed. Similarly an elementary teacher in a school could assist within the school, district and region, possibly within the conference, in better implementing her field of excellence. The other teachers would benefit from the assistance of fellow colleagues. Obviously this type of a program would require excellent administration, thus a professional administrator would coordinate the educational phases of the region. Inasmuch as a business administrator would be helping in the region, he would be relieved of many management problems. Purchasing would be done through professional channels. On down the line various specialized personnel would lift the burdens of the administrator and for that matter, the teacher, so each person might better do that job for which he was hired.

It should be emphasized that these recommendations do not entail a great increase in personnel, just a better utilization of what exists already and a better educational climate in which to work. Many factors are being presented, though the crux of the program being suggested is the regional educational service center and the concepts involved in these centers. As brought out many times, some of these functions must be implemented on a higher organizational level than might be normally advisable because of the limited and scattered enrollment of the schools.

24. Professionalization of educators

A related area of improvement that is needed for a proper regional program and one in which the region can mutually assist all involved is that of the improved professional status of teachers and the professionalization of the educator within the Adventist ranks as well as the field as a whole. It is definitely felt that the regional programs outlined in these recommendations can do much to improve education within the Seventh-day Adventist ranks. However, the correlate of improved status and professionalization is needed in order for it to properly function.

The partial success of this program of increased status and professionalization of educators will be with the regional superintendent, who in many cases will be the only full time administrator serving a given area. The plain facts are that most elementary church schools do not have full time principals and many smaller academies have to do with a principal who teaches a few classes. This is not ideal, but that is what exists. It is here that a fully qualified educational administrator can coordinate the process on the regional level, with close cooperation with the teacher education institution. He becomes a key figure in the program.

The professional growth of the educator can be enhanced by in-service programs on the regional level. Annual conventions for the conference will involve the conference superintendent as well as the regional superintendents who in practice will be colleagues, thus extending the office and service of the conference office. The union conference secretary of education being coordinator of all education within the conference will work closely with the college president and the college department of education in an on-going in-service education program on all levels with the regional superintendent being closest to the local scene as far as coordination is concerned.

25. The media component of the regional educational service center

As noted previously the region that is recommended for the Seventh-day Adventist school system will be more like a high school district in enrollment--and a small one at that--but about as extensive in territory as the typical region, that is about an hour driving time in radius. Because of this situation, many functions of the typical public school regional center will have to be delegated to higher organizations within the denominational program.

It must be also considered that even within Adventist circles the regions will vary immensely according to the area, thus no common specifications can be rendered. In general it might be safe to suggest that the typical Adventist regional center will have collections and media production facilities that might be found in the more typical public school district office or district media center, minus the more expensive items.

The conference-wide media center, probably located at the main boarding academy for that conference, will more likely be like the public regional center, though even here it will be minus expensive items. The college media center will be the most likely center to have the more exotic items but even then the collection will be restrained for the denomination does not have funds for anything but that which is of proven worth.

In a more populous Adventist area, the regional center will probably have filmstrips, slides, cassettes, books, pamphlets, periodicals, sound filmstrips, tapes, disc recordings and similar relatively low budget items. Even with these, only the audiovisual items that are frequently used would be stocked. In smaller conferences the conference media center will have to play the role of regional center.

Production facilities will most likely encompass copy machines for transparencies, a slide copier, laminating machine, a low volume cassette duplicator, paper cutter, stapling unit and similar units that might be purchased for not more than several hundred dollars each. The total production equipment budget would be less than $5 000, no doubt, and more likely not more than $2 000.

The regional center would probably have certain audiovisual equipment that is not commonly used in schools everyday, such as a micro-projector or a portable instructional television unit. Inasmuch as there would be considerable communication via telephone and by person among the schools of the region, equipment and materials would be taken in the trunk of the cars. If itinerant teachers were being utilized, they might use a regionally owned panel delivery or station wagon so as to carry materials and equipment. Loading and unloading would most likely be done by student workers or paraprofessionals.

Regional centers as well as conference and college centers would have supplementary texts, lesser used media and back-up equipment. The location of the various items would be determined by the usage, which would vary from locale to locale.

In that the regional educational service center would most likely be at the local day academy or junior academy, a general book collection would be available with basic reference books etc. In order that duplication be kept at a minimum it is suggested that the local elementary school utilize the same stacks as the secondary school if on the same campus, though separate reading rooms might be used. Titles of any type of media should only be duplicated when their use warrants it. Media costs too much to haphazardly duplicate titles that are little used, even though necessary for a basic collection.

Local schools within the region would have centralized libraries in every case. Room libraries are a definite waste of resources except in the case of supplementary texts or collections that are moved in for particular units of study. The regional media librarian would co-ordinate and possibly operate the local libraries with the use of paraprofessionals, a part-time teacher, or possibly a volunteer. In each situation there would be professional direction to the collection.

26. The media component of the conference educational service center

This center would be basically the same as the regional center and it would be in the conference boarding academy, most likely. In smaller conferences it would be more like the regional center, while in the larger conferences it would carry items used less than usual. The typical larger conference center would have the more exotic science equipment, though not the expensive items available through the union conference center at the college or university. This center would handle sheet music for elementary school bands, choral music for the smaller schools, supplementary texts that the regional centers do not carry, and similar items.

Production facilities would involve small scale television production equipment, videotape unit, dark room facilities and photographic services and similar more sophisticated equipment, as well as the less expensive equipment for local use as well as for productions that local small regions do not have. Most likely these centers would utilize the services of talented pupils who needed to work for tuition payments. Again, there would be a professional in charge of all operations.

In the case of smaller conferences it might be feasible for the production facilities to serve two conferences. Possibly one conference would emphasize book services and processing while the other had an audiovisual specialist. Many smaller academies could not afford two specialists and the facts of the case are that many librarians are good with print items but are at a loss with audiovisual media. The same is true with some men who are good at audiovisual but have little skill in book materials. The two conferences would then cooperate in this field.

It should also be kept in mind that one of the regions might have a person who has expertise in the "other" field, and thus would coordinate conference activities in say audiovisuals while the main conference center would handle print materials and associated fields. Much of this planning would depend upon local resources, both in materials and in personnel. In this latter situation, one of the persons would have to be coordinator with the other an associate. Someone must be in charge, and that should not always be the print media person, as is so often the case. The two fields are of equal importance and require equivalent skills.

27. The media component of the Union Conference educational service center

The coordination of this service would be via the union conference office, though many of the services would be available through the college or university. One person should coordinate the media services of the union conference with emphasis being on external, union-wide services inasmuch as it is assumed one person is in charge of such services within the college or university--though this is not the case all too frequently.

These media services would probably come via two or three departments. Media production would probably come via the audiovisual department. Books and similar print materials would come via the library, while the general teaching materials such as audiovisual software and teaching aids would come through the teaching materials or curriculum center.

The audiovisual department would handle those production jobs that cannot be handled appropriately on lower levels, namely the conference center or the regional center. This center would have rather sophisticated equipment and skilled personnel to produce specialized items of most any sort, other than advanced film and television productions which would come through the Thousand Oaks Center or any other similar center so authorized to be equipped for professional productions.

This department would also have a repair station for equipment. Special personnel would handle mechanical and electronic repairs. Where practical local conferences and regions would have similar stations to serve one or more regions and conferences. There might be the possibility of having church members with expertise within these fields to be regular part-time repairmen for equipment.

This center would also care for duplication of cassettes, unless it was deemed more practical to have it at the materials center. Similar production items would be cared for by professionals in art and photography, as well as in audio recording, electrography and other fields. It is quite obvious that college-wide services of this nature would be cared for in a similar matter, though again this is not the case at all times. All too often there are a half-dozen departments in the business on one small campus. The denomination can ill afford such duplication and waste of effort, equipment and time.

The library would loan out books, periodicals, pamphlets, microfilms and other holdings to any denominational school having need of such, though there would be need of priority listings, probably first place going to the college itself. Xeroxing service would most likely be available on a "cost basis." Any and all services of the library would be for the denomination as a whole, not just as a pure collegiate library. Protective clauses and regulations would obviously have to be drawn up to maintain the collection in proper order.

The materials center would handle a large bulk of the requests for audiovisual software, teaching aids, curriculum guides, professional assistance on educational topics, etc. Inasmuch as all schools would be contributing to the support of such a service, the collection would be larger than if it were being supported entirely by the college or university. Education students would not come to the center to look at teaching materials, but rather get involved from the start with a viable, moving unit that is serving an active integrated school program. The center would not be an archive, but an action center for the entire college would be part of an active program that serves the entire constituency of the church, with emphasis being upon the local union conference. This entire interpretation of the field of higher education should help in lifting it and its professors from its entrenched position of the status quo. Professors would come down from their "ivory towers" and be part of the on-moving educational program of the denomination as a whole. This concept is not new for it is in action already in some public circles. No doubt the department of education of the college would be in the vanguard of this action, for it is they who are working hand-in-hand with the union conference, local conference, the regions and local schools.

The items to be handled by this center would be those items not available in the other lower centers. It would be a basic depository of professional audiovisual material that would not be in sufficient demand for lower centers to carry. No doubt this center could have a fairly complete collection of most types of media. It should be kept in mind that each of these centers would be serving several states and thus should have virtually everything that might be needed, that is not carried locally. However, there should be cross-listing with other centers at other colleges for what they might have. The cooperative-regional concept must be without "walls" for it to really fulfill its purpose.

28. Film and videotape libraries

This type of media is of such high cost, as of this writing, that even union conferences can hardly have a large collection of films and videotapes. No doubt a small collection of often used items might be wise, though it should be kept in mind that maintenance of film requires rather expensive equipment, thus a collection must be quite sizeable to make it worthwhile.

It is recommended that the film collection in Glendale, California be maintained and be made available to West Coast users with the titles to be selected collectively with other film libraries. It is suggested that a film collection be housed at Columbia Union College to serve the East Coast and a collection be located at either Union College or Andrews University to serve the Midwest. An alternate suggestion would be for the Glendale collection to serve the West and an eastern depot serve the Midwest and East. In either case the collections should not unnecessarily duplicate, but reinforce each other so that there may be national usage of lesser used titles. Widely used titles should definitely be duplicated.

These same centers might handle videotapes and videocassettes, with the latter being the probable choice. For whatever the format, it must be one in which the user is not confined to one or two brands of equipment. If the current trends and rumors are correct, it may be that videocassettes, especially denominationally produced ones, will be so inexpensive that conference centers and possibly many regional centers could stock many of them. The college-union conference centers would become major depositories, but only if the costs are such as to justify the investment. If so, then every regional center and many larger satellite schools would have videocassette players. In general the concept is very promising and if what is forecast is true, then the major film libraries would need not carry such.

29. Union catalogs

It is suggested that each union conference media center develop a computer-based audiovisual software union catalog of all basic materials within the union conference. The catalog could be so developed that each center, whether a local school, regional center, conference center, various academies or a college collection, could be inter-filed utilizing their own classification system, yet have it indexed by subjects, titles or authors. Print-outs could be had for any individual collection in any order that the program has been set-up, including shelf-lists by Dewey Number, accession number, LC number etc. In this fashion all schools could know who has what and how to obtain it.

Additionally each school, region etc. could fill-in computer input forms that would be somewhat customized for local use, but yet could be utilized in a union catalog that would benefit all. No doubt copies of the union catalog could be distributed to other unions, in toto, or any part.

A second stage might put print materials on such a book catalog thus making print materials more accessible to the other schools and thus better utilize the very expensive media that is to be had.

Specialized collections should be put on such a format and thus make such accessible to others. This might include specialized science equipment to be made available to various academies on a rotating basis. Sheet music files might be made available in this way and any other of scores of fields.

Most studies seem to indicate that this approach is less expensive than hand cataloging and in addition makes it more available.

30. The regional educational service center and the tutoring program

The regional center might act as an agent for tutorage programs. It might be a clearinghouse for volunteer workers willing to devote time to assisting pupils with learning problems of various sorts. These volunteers might be adults, such as housewives, retired school teachers etc. In some cases retired teachers might be hired for a wage within their social security allowance, thus giving them some extra cash, a sense of satisfaction in helping as well as giving very valuable help to the pupils and school.

The center might also act as liaison between academies and colleges or even upper grades of elementary school in the provision of volunteers from among the pupils of these schools. Generally speaking many young people enjoy doing public service jobs, thus the regional educational service center could act as a catalyst and clearinghouse for cross-age helping programs. All too frequently the local schools realize the possibilities in such programs but do not have ample time to organize and administrate such programs. With the local superintendent being a full time administrator, he could spend more time on strictly educational programs such as this.

31. Specialized educational service centers

In addition to the regular regional educational service centers, conference and union conference centers, there might be specialized centers. In some cases this might be a general center that has specialized in an area or it might be a separate entity. The decisions will have to be made by those involved, considering the clientele, budgets etc.

These specialized areas might include centers for health education, science, drug education, physical fitness, religious education, Sabbath school-vacation Bible school, and any other area in which there is a need. Obviously such centers, as any centers, would most likely develop gradually--not by fiat--for much needs to be done to get people into the proper attitude of cooperative action on a full scale. As they see a successful operation in one quarter they might be more willing to cooperate in another.

Though a given regional or specialized education service center serves a certain area primarily, there should not be a clanishness in who can use what. Without doubt certain guidelines and protective clauses will have to be noted, but let the usage be as broad as possible. The materials and expertise associated with these materials should have a broad application. Various centers should be encouraged to specialize in areas in which they might do so most profitably, but do not allow this to be haphazard. Planning should go each step of the way.

This recommendation would be parallel to those regarding the full utilization of personnel and materials. Do not duplicate items unless there is ample need and usage. Similarly do not duplicate expensive facilities unless there is an obvious need and it can be justified fully. Thirdly utilize personnel to their fullest. If a given media center director is available with given specialties in his repetoire, utilize these to the fullest. Do not let him languish in oblivion as he works outside of his area. This has occurred all too often.

Full communication must occur to make these specialized as well as general facilities as useful as they might. Union catalogs and bulletins might help fulfill, to some degree, the dissemination need. Professional public relations experts no doubt could assist in this full utilization program. No matter how good the material, if people are not aware of it, it will not be used.

32. Site, architectural and contracting services

Though there might be need at times for specialized non-denominational personnel, generally speaking engineering, surveying, architectural designing, contracting and sub-contracting should be done by denominationally employed personnel working on a similar wage scale to the other church workers.

There was a time in denominational history, and that time still exists in some sectors, when churches and schools were designed and built by amateurs. All too often they looked the part also. This writer definitely feels this is not good practice. Specialists should do the work within their area and that work should be done without undue interference by others. It is apparent that the educators are interested in the building in which they are to work. They should have their say as to characteristics and various facilities, but they should not tell the architect how and what. He is a professional and should have professional perogatives and be treated appropriately. His wisdom should be considered and applied. This principle applies to every phase of the denominational program and is an integral part of the proposals in this paper.

In some circles there has been a reaction to the amateur approach to design and construction. Professional architects and contractors have been hired with a virtual ignoring of church members in these professions, who many times are willing to do the job at a considerable saving to the school or other institution. With some there is a feeling, evidently, that the non-church member knows more than the member. This comment has been voiced more than once in regard to many professions. The prophet is without honor in his own country, as it were. This type of pseudo-sophistication is costing the denomination too much money in some quarters--very likely as much as 10 to 30 per cent or more in some cases. There is little room for this type of.pride, obviously.

Some argue that local architects--or for that matter dealers, local tradesmen etc.--should be hired for various reasons which are usually valid. However, when this type of action is repeated in the 50 states and not only in architecture and construction but in various other fiduciary ways, the costs mount into the millions of dollars annually. These elements must be weighed very carefully. Remember that Institutional Services when in Glendale, California, saved well over a million dollars in less than two years of operation and that was with a limited number of institutions participating. A denominationally employed architect could easily save over $10 000 on a single building, over a local percentage fee architect.

It is suggested that the denomination employ various architects, engineers, contractors and similar professionals and craftsmen willing to serve the denominational program on the same basis as other church workers. These personnel might be full-time or part-time, depending upon the arrangement and needs. It probably would not be wise to have one architect do all the schools in a given union conference or they would be too similar. However the designing should be according to a certain overall plan utilizing modular units, mass contracts for components and other cost-saving programs such as those being utilized at Stanford and other planning labs. It probably would not be out-of-line to suggest an overall saving of at least a fourth to a third over running costs of buildings if these suggestions were carried to their fruition. This is based on past observations and the literature.

Again in this area, there are specialists, such as in church architecture, schools, gymnasiums and swimming pools etc. It might not be wise to have representation in every field in that some areas are too specialized to be practical in the retention of a full-time expert, however, in spreading out the base of personnel investment, more specialists might be involved. A local conference or even union conference would not have ample construction to employ sufficient professionals and craftsman in some fields. The regional concept would be a definite aid, though that "region" would of needs be a greater area than most public regions.

33. Administration vs. coordination

Much could be said on administration, and has been said. A few words are in order, however, in line with the overall recommendations and philosophy of the regional concept as this writer sees it, and as it might apply to the denominational program.

As noted time and again, professionals and associated personnel should be utilized to their fullest within their fields. Administrators should be professionals in their field also. As such they will know that professionals and craftsmen etc. working with them are not under them in a literal way, but rather are co-workers, each with his field of expertise. As such the administrator should realize he is not a dictator or "fount of all wisdom." He is to administrate and coordinate, but not to lord it over fellow skilled personnel, or for that matter those not so skilled.

Personnel should be given the proper authority to implement the programs within their field of endeavor. Quite obviously the administrator needs to give overall direction to the program, but he should do this professionally with the full knowledge that those working with him know, most likely, more about the field involved than the administrator himself. That is why, probably, that that person has been hired for the position. Thus give him power to carry out his job as efficiently as possible. It is apparent some have more skill in this than others, but professional administrators will be able to delineate and clarify roles with the help of proper counselors. The regional educational center and allied denominational activities center will be able to render such service, under the recommendations of this paper for professionals will be involved each step of the way.

Another comment seems in order. While there is absolute need for democratic processes and proper administration, there is also a need to eliminate all unnecessary "red tape." As it is, it seems that the larger the institution or organization and the more "progressive and enlightened," the more the need for excessive steps and procedures--committees and subcommittees, signature and counter-signatures. There is no quarrel with the idea of keeping the program in balance and budget etc., but if smaller groups can expedite business, why cannot the larger ones also? If the introduction of the regional center and the intermediate educational unit into the Seventh-day Adventist denomination along with the various and sundry recommendations needs to be concomitant with increased bureaucracy, miniature dictatorships and endless committees and official this and that, it will have basically failed in its real purpose. The literature has brought these dangers out in many ways. This is a decided danger and thus every effort must be put forth to implement without complicating. The entire program must be serviceable and efficient. Each step must have a well-supported rationale.

34. Conference curriculum consultants

As noted before it is suggested that the supervisory concept be dispensed and it be substituted with the service-oriented concept. Every conference should have such a person, even if they must share such a consultant with a neighboring conference. Obviously this person should be current in their understanding of curricular and instructional trends. They should work closely with the regional superintendents in in-service programs. Similarly such on-going programs will occur on the conference and upper levels.

It is further suggested that coordination exist as to official delegation according to academic and experiential background in the assignment of subject areas and instructional methods to various of the conference consultants. They would in turn be delegated with coordination of the curriculum within their field (and within their grade levels) for the North American Division. Ideally, possibly, this direction would come within the General Conference and no doubt should have overall coordination. It is understood that all curriculum guides would be coordinated from the General Conference so as to forestall the duplication of effort. There is ample for teachers to do without making work, as it were.

35. Psychological and guidance services

Though it is best for each school to have its own guidance and counseling personnel, few within the denomination can afford such. Many academies have a professional counselor on their staff. If such is available he should also serve as the coordinator for such services for the region unless another person can be so hired.

No doubt many educators about the conference would have majors in counseling and guidance. These persons should, other things being equal, be utilized, if not full time at least on a part-time basis.

It is suggested that some pastors ought to specialize in counseling with work being taken in both the seminary and graduate school in counseling and guidance. He could then serve in general counseling within the church and in school counseling within the region or possibly within the district if the membership is large enough. His emphasis in professional preparation would not be on theology, biblical languages, and history but rather in sociology, psychology, clinical pastoral counseling, school counseling, human relationships, Christian ethics etc. This man would serve both church and school. It should be noted that when possible a regular school oriented counseling and guidance person should be utilized, but for such areas that cannot afford such, the alternate is suggested.

36. Resource directory

It is recommended that the General Conference initiate the publication of an annual resource directory for the use of the various institutions of the denomination. The directory would list the various regional centers, conference centers and union conference centers as well as any specialized centers about the country. Note would be made of unique services, collections or locations. Specialized personnel would be listed, both within denominational employ and those available on either a fee or voluntary basis. Where funds are involved for any services, those would be listed in sufficient detail so administrators and other teachers and workers in general could make intelligent decisions.

Other types of resources would also be listed, such as services available from other institutions. Ample information should be listed so personnel would know what is available, what the general fees would be, who would be eligible, time elements involved etc. It is said that letters cost up to several dollars each, thus such a directory should eliminate as much correspondence as possible when inquiring of general information.

In general it might be stated that those resources currently available, or those resources that might be made available with some reorganization, are tremendous. Much of that suggested in this paper does not involve large expenditures, but rather reorganization and the acceptance of a broader outlook of service.

37. Site purchase and facility construction

If the schools and other institutions were operated on a broader base, it should be possible to purchase land for buildings and to build those buildings as the need arose. As it is each institution--school, church, hospital etc. must have a local campaign for fund raising. This may take several years in which prices generally rise, at times 10 to 20 per cent. Similarly some schools will sell off some of their land to pay for buildings--then buy it back at several times as much later on when the land is needed. This appears to be poor stewardship that could be averted through a closer cooperative program.

It is suggested that funds be held collectively, either by the conference, union conference or General Conference to be utilized as the need became apparent. This is not suggesting a super-power, for the woes of this dictatorial or super-bureaucratic system have been noted already. It is suggested that a thoroughly democratic, cooperative program be developed whereby land could be purchased when needed or where a potential need was felt and whereby facilities could be constructed at the time the need was apparent. In the long run, it is felt money could be saved.

From whence comes the money? Rather than have high pressure fund raising programs, encourage the membership to set aside a regular percentage of their income for capital expenses and likewise the various institutions should set aside a budgetary portion of their income. The denomination could have, and probably already has, specialists who invest the funds wisely for income. It is realized that this is a long run program, but through this cooperative action strength should come.

38. The Home Study Institute

This institution is a definite contribution to the denominational program already. It is a cooperative venture in extension study in which they utilize print materials and are implementing videotape lessons. It is suggested that this program be greatly expanded and become a regular part of the curriculum of many of the schools, especially the secondary schools.

The Institute can do much to offer supplementary course material, enrichment courses, remedial courses etc. It is suggested that it put greatly increased emphasis upon audiotutorial materials utilizing all types of media. In addition to self-study courses and mini-courses, small seminar classes could be offered. Team teaching could use segments prepared by the Home Study Institute.

It is obvious that some delineation would be made as to what the General Conference Department of Education instigated or carried out and what the Home Study Institute developed. For whatever the allocation, it should be clear that all educational efforts of the denomination and more specifically the North American Division should be very clearly coordinated so as to avoid unnecessary duplication, no matter what the level or location. It must operate as a system, not a collection of schools, etc.

39. Regional Center financing

In general it is recommended that the overall funding of institutions within North America be equalized so the poorer areas, such as Appalachia, the Rocky Mountain states, the South etc. might be better funded. The unselfish Christian spirit should cover most objections to such a plan though it is realized that those who are richer might object to some degree. Such assistance would have to be negotiated, it is realized.

Each regional center would be budgeted from the conference office with certain percentages being allocated to specified areas, including a per pupil allotment for media with a certain differential allowance for new schools, schools that are emerging etc. Possibly a certain local allowance would come from local funds. The records of what is happening should be available to any serious person. Public records are generally available and so should church records.

Some of the literature has noted that schools that are on the periphery of a region would not be able to readily utilize the media collection and other services of a regional center as much as the schools located adjacent to it. Allowances should be made in budgeting in these situations. The outer schools should have a greater allowance for local services and media collections inasmuch as the regional center most likely would be located at the major school of the region. Possibly a time or distance formula would need to be developed in the allocation of funds.

40. Junior academies and the regional center

The junior academy, referring primarily to the 9th and 10th grades, is probably one of the weakest links in the Adventist educational system. All too often the pupils in these grades do not receive the quality of instruction that they would obtain in a full four year academy (grades 9-12). The instructors typically are spread too thin in their subject assignments, often teaching in fields for which they are not qualified. Inasmuch as the schools are smaller and more parochial, the teachers and administration are under greater pressures from parents and consequently scholastic and discipline standards are lowered. Library facilities and materials are generally weak as are other facilities and instructional materials.

In the foregoing recommendations there are many elements that should go a long way towards strengthening this type of a school. It is obvious that many areas cannot support a full 12 year program. It is suggested that no school be operated unless it can come up to minimum standards. The more solid organizational base of operation should lend stability of faculty. The sharing of professional personnel would make it easier to staff the schools with competent personnel. The greater use of audio-tutorial media programs, supplementary media collections, the greater availability of resources from about the denomination, and the other facets enumerated in these recommendations should assist in this bolstering of educational quality.

41. Economical academies and colleges

Currently the Seventh-day Adventist schools are catering basically to middle and upper middle class people. Poorer people find it difficult to afford a Christian Education. True, "where there is a will there is a way," but oft times there are many factors that make this difficult. It is suggested that an avenue might be made available for many more young people to have academy and vocational educational opportunities.

Overall it is hoped that the recommendations of this paper would give more education for the money and make it possible for more to go to school, or even wish to go to school because of the better quality of Christian education than now exists in many circles. Of course this is made possible by better utilization of resources and reorganization made possible by full cooperation on all levels of the denomination.

One of the new avenues of service that could be made available by this approach to education would be schools geared to the needs of those short on cash. It is recommended that at least one of the colleges in North America be geared to students with less income and that each of the union conferences have at least one academy so designated. It is not suggested that these schools be lower in educational quality, but rather they be geared to those with lower incomes. Every effort would be bent to cutting costs. By cooperating with sister schools and the multitude of other avenues outlined in this paper, such trimming should cut costs without basically curtailing educational quality.

It is felt that such schools should be made available for many reasons, including the need for an economical school. The regional center concept would go a long ways in making such a program viable and workable by providing the back-up resources made available by mutual action.

42. Research and dissemination

As noted previously the regional center in Adventist circles would need to be quite different in many ways from the public counterpart. It is suggested that the General Conference coordinate the research efforts of the denomination. No doubt much of this could be delegated to the various institutions of higher education and the Hewitt Research Center or similar organizations. With the closer cooperation of schools on all levels this should more readily give access to the materials for research and the resultant implementation of the research. As it is the implementation is often decades after the theory. The overall professionalization of the program should also aide in this potential progress.

The Journal of Adventist Education no doubt is the most likely organ of dissemination. Any and all resultant studies should be made available to the field as economically as possible. This is no area for profiteering, even as no area anywhere within the denomination should be based on such an economy when it is for the benefit of all.

CHAPTER 27

RECOMMENDATIONS FOR SPECIFIC AREAS: NORTHERN CALIFORNIA, MICHIGAN AND AREA, NEBRASKA AND AREA

The following suggestions are not intended to be the final word. It is very apparent that much in the line of negotiations would ensue. In-depth studies of local desires and needs would be involved. Committees and sub-committees would need to discuss the pros and cons of all issues and suggestions. However, there must be a point of departure--a starting point for action. It is hoped that this paper and the ensuing recommendations will act as a catalyst for such action. Already there are evidences that many are interested in many of the concepts brought out in this paper. Hopefully this seed will grow.

1. Districts and regions in Northern California

Though this paper is not discussing district organizations as such, the regional/cooperative program cannot be understood without a foundation. This district type of organization is not clear-cut within the Adventist circles. Therefore the following suggested division will be given as an example of the components of a region. The region would cover the counties of San Francisco, San Mateo and upper Santa Clara. The specific districts would be as follows:

1. San Francisco (S.F.), with the junior academy being the main school. Additional primary schools might be located in the Richmond District (S.F.), Daly City or Pacifica.
2. San Mateo County, with the Burlingame school being the main school with a possible primary school in Redwood City. Burlingame would be either a six or eight grade school, depending upon whether or not a junior high school were established for the southern portion of the region.
3. Miramonte school to serve the Mountain View, Palo Alto and Sunnyvale area, either as a six or eight grade school.
4. West Valley School to serve western San Jose and neighboring suburbs, either as a six or eight grade school.
5. Alta Vista school to serve eastern San Jose and Milpitas, either as a six or eight grade school.
6. A possible junior high school for the southern portion of the region to serve the four current elementary schools of Santa Clara and San Mateo Counties.

The schools of this proposed region would work as a team with personnel, facilities and media being in common ownership and under the direction of a full time, fully credentialed school administrator. The regional superintendent would coordinate all educational activities within this region. A full time media specialist would coordinate the media program and probably act as academy librarian at Mountain View.

Mountain View Union Academy would be the most logical place for the regional offices as a whole or at least for the media component

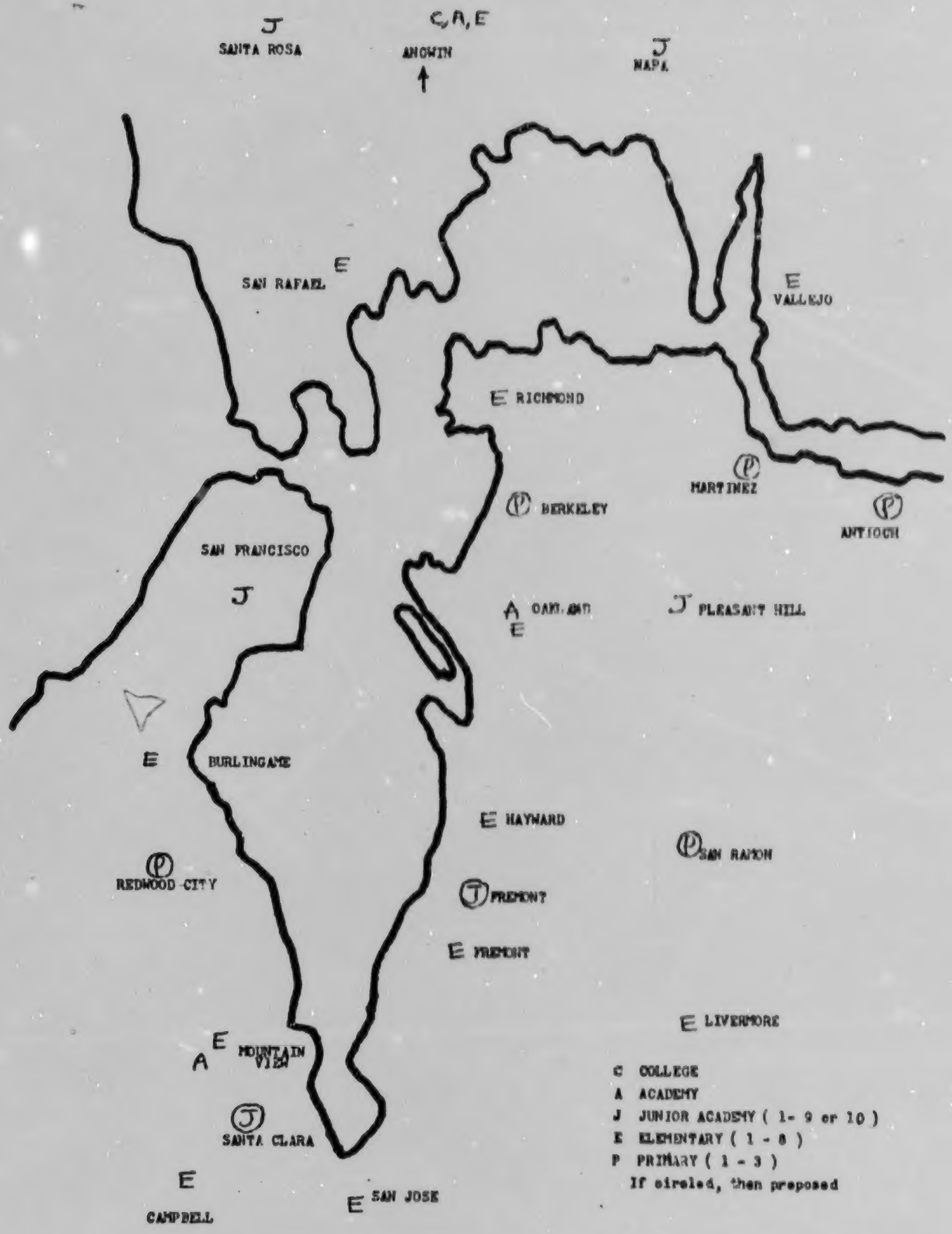
J
SANTA ROSA
C, A, E
ANGWIN
J
NAPA
E
SAN RAFAEL
E
VALLEJO
E RICHMOND
P
MARTINEZ
P
ANTIOCH
P BERKELEY
SAN FRANCISCO
J
A OAKLAND
E
J PLEASANT HILL
E
BURLINGAME
E HAYWARD
P SAN RAMON
P
REDWOOD CITY
J FREMONT
E FREMONT
E LIVERMORE
A E MOUNTAIN VIEW
J
SANTA CLARA
E
CAMPBELL
E SAN JOSE
C COLLEGE
A ACADEMY
J JUNIOR ACADEMY (1- 9 or 10)
E ELEMENTARY (1 - 8)
P PRIMARY (1 - 3)
If circled, then proposed

FIG. 4. SUGGESTED DISTRICTS AND REGIONS FOR THE BAY AREA OF CALIFORNIA

in that it has the most highly developed media center of the schools in this area (proposed region).

In a region of this size there would be a full time church superintendent and a full time business manager. The area could easily support a full time religious education director to coordinate all youth activities at the churches and the Pathfinder Clubs. He might also coordinate Sabbath School activities or another person might be hired for such a position.

A full time guidance person would coordinate regional counseling and guidance programs. In smaller regions one of the pastors would double as religious counselor and school guidance coordinator for the region.

It should be made clear that some of these persons would also be carrying other duties where necessary and where the population was not sufficient for full time personnel. Overall it is not the intention that numerous new personnel by hired beyond the current compliment of personnel, but rather they be utilized within their field of expertise and be given appropriate authority to act within their area. In order for this to be done, the regional organization is being suggested as the most practical avenue for such implementation.

2. Other regions in Northern California

The district organization would be similar for each of the suggested regions. Some districts would have but one church supporting the church school while in others several churches would be involved. These districts would have definite boundaries.

The regions would generally be headquartered at the largest school within the region for it would be here that the largest portion of personnel, facilities and media would be found.

1. Monterey Bay Academy would serve Santa Cruz, Monterey, San Benito and lower Santa Clara Valley.
2. Golden Gate Academy or the school in Pleasant Hill would serve Alameda and Contra Costa Counties.
3. Rio Linda Academy would serve the schools of Marin, Sonoma, Lake and Mendocino Counties.
4. Pacific Union College or the preparatory school would serve Napa and Solano Counties.
5. The junior academy at Fortuna would serve the upper Redwood Empire area.
6. Redding Junior Accademy would serve the northern Sacramento Valley.
7. The eastern slope of the Sierra Nevadas would be served by the Reno school.
8. Yuba City would serve the central Sacramento Valley and surrounding foothill country.
9. Sacramento Union Academy would serve the south end of the Sacramento Valley and the Greater Sacramento area.
10. Lodi Academy would serve the northern portion of the San Joaquin Valley area and the lower portion of the Northern California Conference.
11. Modesto Union Academy would serve the northern portion of the Central California Conference.

12. Fresno Union Academy would serve the central portion of the San Joaquin Valley.
13. Armona Union Academy would serve Kings and Tulare County.
14. Bakersfield Union Academy would serve Kern County.
15. The junior academy at Arroyo Grande would serve the south coastal area of the Central California Conference which is comprised mainly of San Luis Obispo County.

Not all of these regions would be of equivalent strength, however, they would all be serving a practical region in size. Undoubtedly there would be mutual sharing of services between and among regions. Personnel might have to be shared also. This has all been done before and should work in such situations in California also.

3. California conference centers

It is recommended that the media component of the conference centers be located in three centers. For Southern and Southeastern California Conference it would be the La Sierra College campus of Loma Linda University. For the northern California coastal areas it would be Pacific Union College. For the Central Valley (Sacramento and San Joaquin Vallies) develop one of the academies into a larger center. This might be Modesto or Fresno Union Academy.

The conference offices would coordinate other activities as suggested in the general recommendations. However, the Northern and Central California Conferences should work very closely in their operations in that they are adjacent and have so much in common in

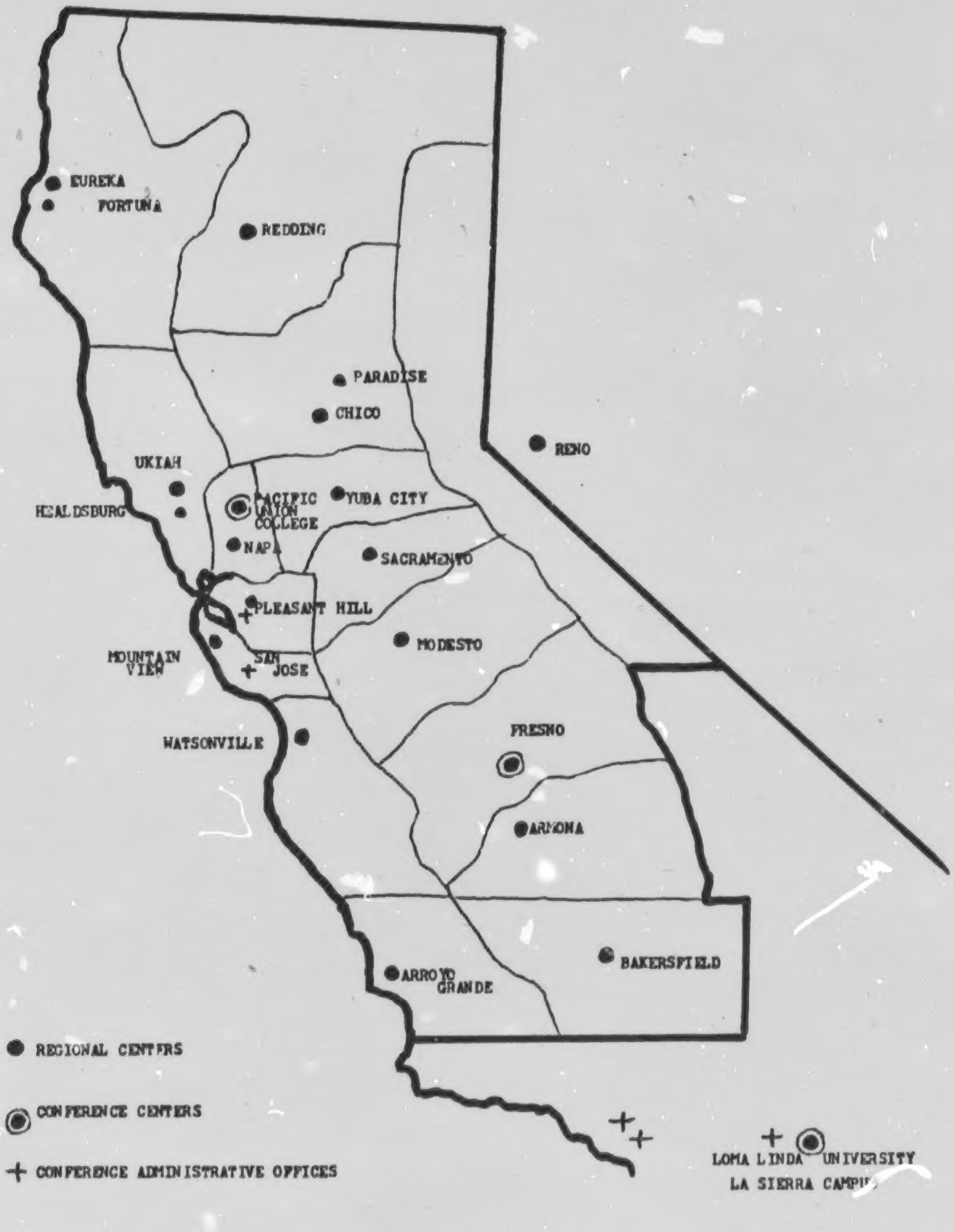
EUREKA
FORTUNA
REDDING
PARADISE
CHICO
RENO
UKIAH
HEALDSBURG
PACIFIC UNION COLLEGE
YUBA CITY
NAPA
SACRAMENTO
PLEASANT HILL
MOUNTAIN VIEW
SAN JOSE
MODESTO
WATSONVILLE
FRESNO
ARMONA
ARROYO GRANDE
BAKERSFIELD
● REGIONAL CENTERS
◉ CONFERENCE CENTERS
+ CONFERENCE ADMINISTRATIVE OFFICES
LOMA LINDA UNIVERSITY
LA SIERRA CAMPU

FIG. 5. SUGGESTED REGIONS FOR NORTHERN CALIFORNIA

every way--or should have these elements in common. The offices are but 50 or 60 miles apart.

4. Districts and regions for southwestern Michigan

It is suggested that Niles have either a 6 or 8 grade elementary school, as it now has, but not as a parochial school--rather a regional school. Eau Claire should be reduced to either a primary or a six grade school. Benton Harbor should continue as an eight grade school or possibly join in a county-wide junior academy in Berrien Springs. The Berrien Springs Village school should be a six grade school or possibly a primary school serving all churches in Berrien Springs. The laboratory elementary school in that case would become a middle school and the junior academy would serve all Berrien Springs churches and possibly all the county. The Andrews University Academy would continue to serve the area as a day secondary school on the proposed new campus.

In general it is suggested that new churches that are at any great distance from existing elementary schools might consider establishing primary schools but bus older children to other schools whenever possible. All such establishments will be done as part of a total educational effort.

Andrews University and its facilities should be at the disposal of all denominational institutions in the area, or for that matter in any area. It is apparent that the goals of higher education have top priority, however, there is quite obviously much that the university can offer the local community as well as the church as a whole. This cannot be done properly as long as various personnel on campus retain baronies or restricted interest patterns. The institution, all institutions, are the resultant enterprises of the church as a whole and the outgoing productivity should reflect this on all levels.

5. Other districts in Michigan

Most other areas in Michigan are not as populated with Seventh-day Adventists as Berrien County, however, most of the southern counties of the state have a sizeable population of Adventists and can follow the same general program as suggested previously.

One current practice that must be changed as soon as opinions agree to any degree is the dual school system. Flint already has done this, not without some problems, but very likely the advantages outweigh the disadvantages in the long run, if not the short run. In the West there are very few segregated schools and with the advanced communications in social and technical fields, this differentiation of practices need not continue much longer. It is highly inefficient as well as having certain ethical drawbacks to a Christian community. The Andrews University area is integrated and doing quite well. It is hoped that other areas will follow.

As noted previously in this paper, most of the general population of Michigan is found within a few hundred miles of the Ohio-Indiana border. It is quite evident that districts and regions in the northern end of the state cannot have the service facilities of the larger southern centers. Therefore the larger centers will have to serve many of the needs of the smaller regional centers to the north. This is true on all organizational levels.

6. Other regions in Michigan

In general regions should be centered at the strongest school in the regional area so that the resources that currently exist can be tapped to their fullest. As mentioned in the literature the radius of operations should normally be a one hour driving radius. In the populated areas of the state this can be done quite readily. Even in the State of Michigan plans the upper peninsula and the northern lower peninsula cover larger areas than the populated belts.

The following suggestions are subject to many modifications and possibly the school in some situations might not be the ideal one, however, the general recommendations are:

Region one: The upper peninsula headquartered at Marquette.

Region two: NW northern lower peninsula with the center at Traverse City.

Region three: NE northern lower peninsula with the center at Alpena or similar area.

Region four: Central west coast of Michigan with the center at Grand Rapids.

Region five: Central Michigan with headquarters either at Cedar Lake Academy or in the Tri-City area of Bay City, Midland and Saginaw.

Region six: The "Thumb" area of eastern Michigan served through Adelphian Academy.

Region seven: Lower central Michigan served by Grand Ledge Academy near Lansing.

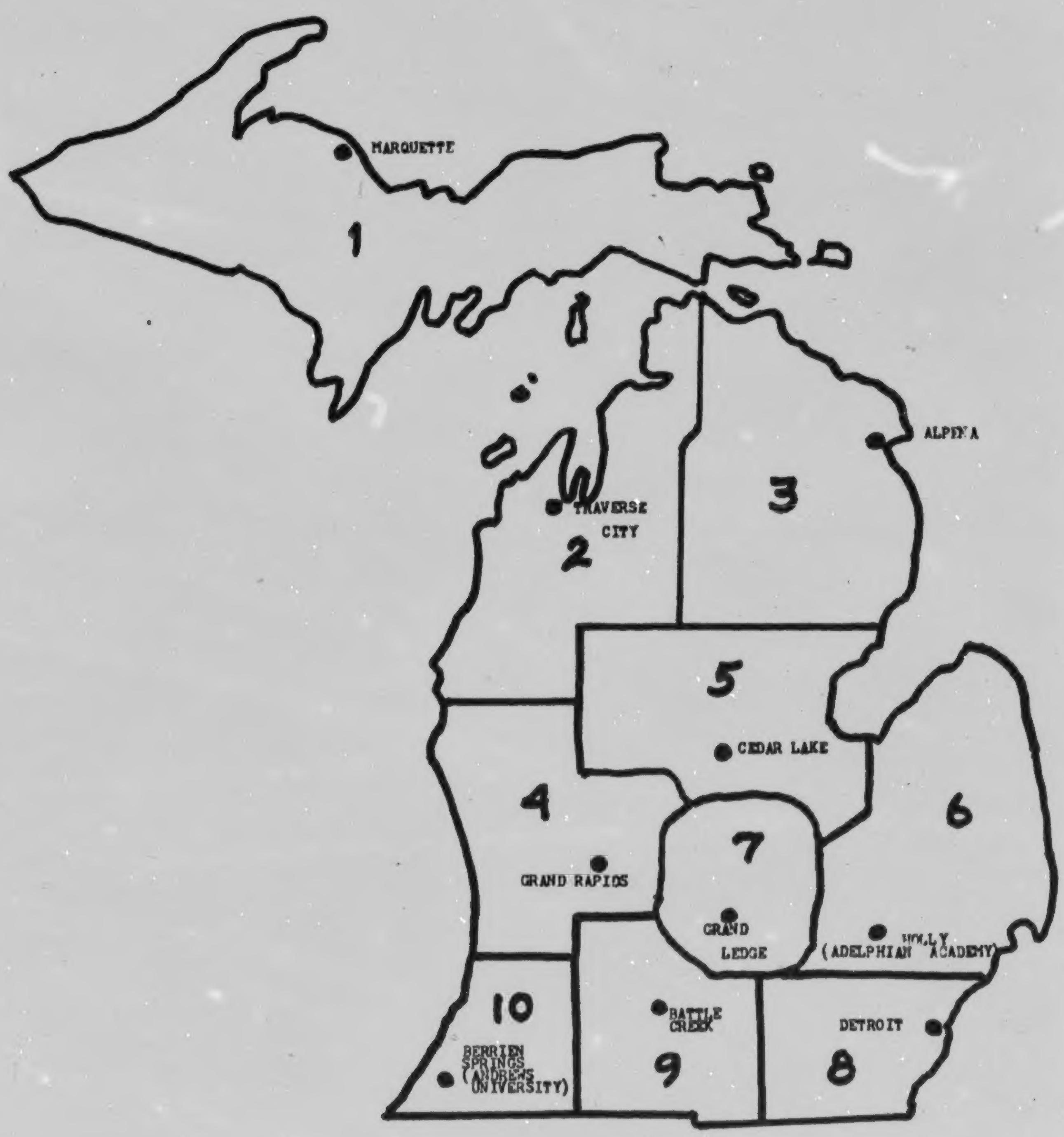
MARQUETTE
1
ALPENA
3
TRAVERSE CITY
2
5
CEDAR LAKE
4
6
7
GRAND RAPIDS
GRAND LEDGE
HOLLY (ADELPHIAN ACADEMY)
10
BATTLE CREEK
DETROIT
BERRIEN SPRINGS (ANDREWS UNIVERSITY)
9
8

FIG. 6. SUGGESTED REGIONS FOR MICHIGAN

Region eight: Southeastern Michigan served by a day academy serving the Greater Detroit area.

Region nine: Southwestern lower Michigan served by Battle Creek Academy.

Region ten: Southwestern Michigan served from Andrews University in Berrien Springs.

7. The Lake Union and its conferences

It must be considered that even where formal division lines might be drawn, some churches and schools might be more convenient to another center. This should not cause concern for in practice a union catalog and other cooperative factors will make each denominational institution even more dependent upon the other for economical and efficient service to the denomination as a whole. Without doubt district attendance lines should be adhered to in order for schools themselves to function properly with exceptions only being made when there are extenuating factors. Experience has shown this avenue to be generally the safer route, though other alternatives should not be ruled out. With schools being run by the denomination as a whole and the school boards being on a regional level with local advisory boards, the stability should be strengthened.

This prefatory note is given in that South Bend, Indiana, for instance, is rather close to Andrews University in Michigan. Gary and Hammond, Indiana are closely knit to the Chicago, Illinois area. Toledo, Ohio is close to Detroit, Michigan and Ironwood is on the Wisconsin line. Conference lines cannot be a hindrance to progress.

On the other hand the line must be somewhere. The key is in very close cooperation one with the other. It has been done in secular circles. It can be done in denominational circles.

It is recommended that Adelphian Academy might serve the media needs of the eastern portion of Michigan and to some degree northern Ohio. Andrews University should be the union conference center, but also serve the western portion of Michigan and northern Indiana as a conference level center. Broadview Academy would serve northern Illinois while the St. Louis school might serve southern Illinois and eastern Missouri and possibly part of Kentucky, though possibly Sunnydale Academy might better serve. Wisconsin Academy would serve Wisconsin and to some degree the upper peninsula of Michigan. Indiana Academy would serve central and southern Indiana.

Each of these states would have their respective regions, some relatively strong with full services and some smaller units with only partial services but being served cooperatively by other centers, the conference center and even the union conference center at Andrews University.

Being Andrews University is a General Conference institution, the president is, in a sense, under two superiors. The college part of the university is a union conference school primarily serving the Great Lakes area. Under the suggestions of this paper the colleges should not be a strictly independent entity within the union conference but rather be part of the total educational effort with the educational secretary having considerable say in the operation of the institution, not so much as a superior but as a coordinator of activity. In the case of Andrews University and Loma Linda University the dual role is in the specialized schools and graduate schools and it is here that the General Conference is directly involved. This should not be a cause for alarm if the schools are all operated as a part of a total system of education with each doing its best to cooperate with the total effort of religious education for the total man.

8. Districts and regions in Nebraska

As outlined before the problems in this part of the country are unique from a secular standpoint as well as denominational situation. Without again reviewing the problems, the following recommendations are made for Nebraska.

1. Inasmuch as Union College and the elementary school and academy will be part of a coordinated effort, it is suggested this complex serve eastern Nebraska and the Council Bluffs portion of Iowa.
2. Platte Valley Academy would serve the western portion of the state, mainly with media services. The conference office in Lincoln would coordinate most other services in conjunction with Union College.

In most cases the districts would be comprised of one-room schools. However, even here, wherever possible the scattered churches should cooperate in their affairs where feasible. There still remains the need for coordination, in many ways more so than in the more populous areas as this paper has attempted to bring out.

Where it is deemed legally and ethically appropriate the schools should investigate the possible uses of the state system of regional educational service centers. All action should be cleared with upper eschelons prior to any commitment.

The Lincoln and Omaha areas are the only metropolitan areas of any size within the state and thus may be treated as separate regions within the conference. This area needs further study for proper implementation. What has been suggested might be the nucleus of a workable system.

9. Other centers in the Central Union

Sunnydale Academy would most logically serve most of Missouri, possibly lower Illinois. Enterprise Academy would serve most of Kansas, though relatively strong centers might be developed for the Kansas City and St. Louis areas to serve those metropolitan areas. Campion Academy might serve Colorado and Wyoming with Laramie and Cheyenne being relatively close at hand.

It is recommended that Union College take a more leading role in the media field than the more populous conferences and union conferences. This would be true of the Central Union Conference and Union College as a whole when it came to many other services. If it doesn't come from this source, it more likely than not will not come. The key is in Lincoln, Nebraska.

The other major Adventist population center is in the Greater Denver area. Two large hospitals are located in the general area along with two academies. It is only logical that Campion Academy or

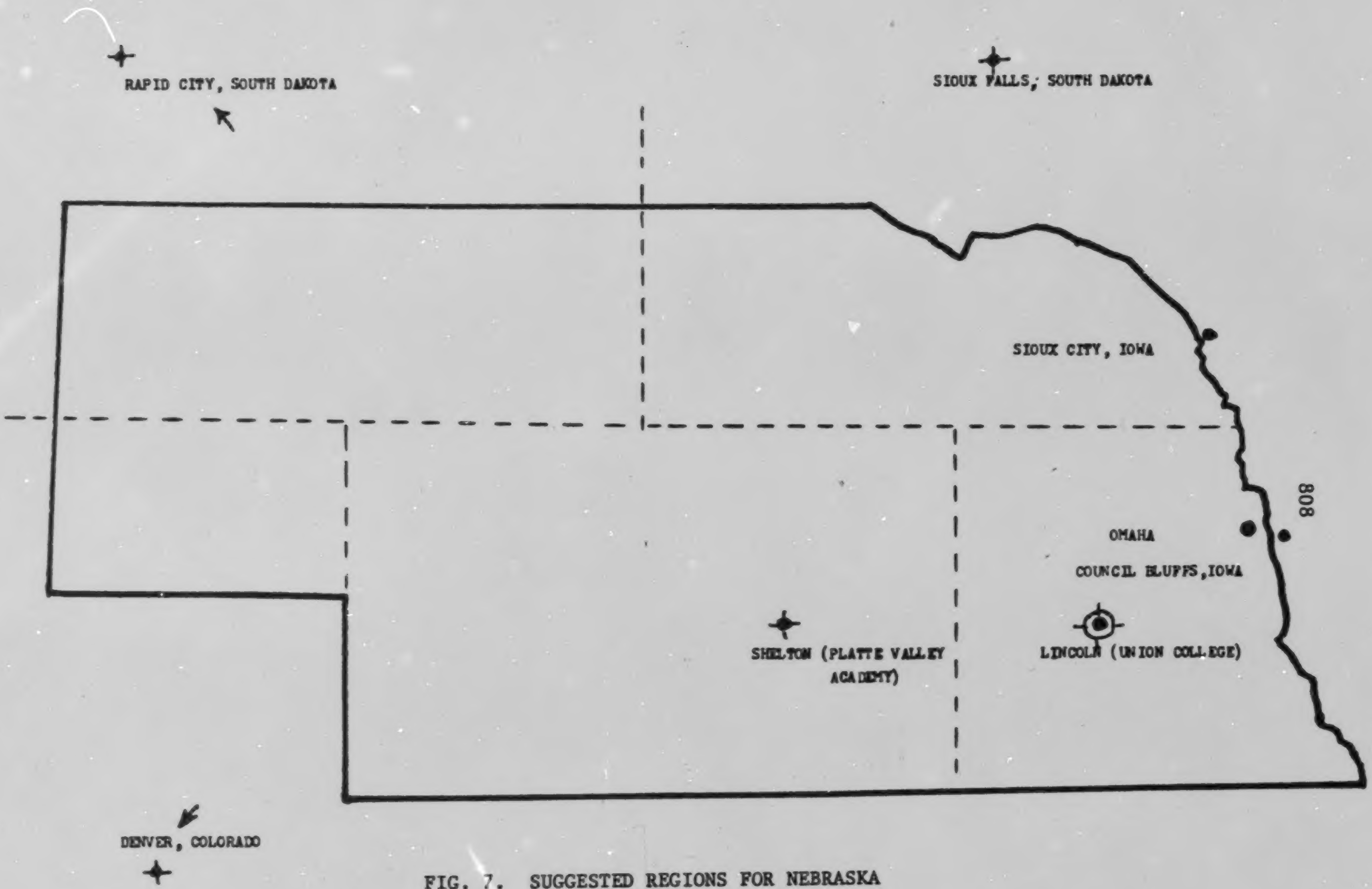
RAPID CITY, SOUTH DAKOTA
SIOUX FALLS, SOUTH DAKOTA
SIOUX CITY, IOWA
OMAHA
COUNCIL BLUFFS, IOWA
SHELTON (PLATTE VALLEY ACADEMY)
LINCOLN (UNION COLLEGE)
DENVER, COLORADO

FIG. 7. SUGGESTED REGIONS FOR NEBRASKA

Mile High Academy be a second major center in the Central Union Conference. Thus Colorado would serve the western portion of the union conference with many extra services while Union Colelge would serve the eastern portion of the area, though in some of the more exotic areas Union College would care for the entire territory, plus the Northern Union.

Without doubt Andrews University would assist these less populated areas with back-up service in various areas. Inasmuch as all schools would be part of a coordinated system this would be more easily done. Union catlogs would be on file at major centers, and at a minimum at the college center. Various computer data banks might also be on file. Telex lines might interconnect the college centers.

It should be noted that Union College also serves the Northern Union which is comprised of Minnesota, Iowa and the Dakotas. The media component and the other types of services would be very closely tied in with Union College. Without any doubt the educational secretaries of the two unions would work very closely in coordinating their educational efforts, possibly more so than most other unions in that they are the only two unions to share a college. The others have at least one college each. Obviously even here there is value in sharing resources, but it is even more critical in the less populated areas.

10. Other union conferences and colleges

Each union would follow the same general outline as noted previously. It might be well for each college to specialize in some area of media and to disseminate bibliographies and print catalogs of holdings. A similar approach could be done in individual union conferences with various of the conference and/or regional educational service centers. There is little need, in many instances, to have similar holdings in all fields in all places. In a similar way it is hardly necessary for every center to have a complete production center for every type of media. These efforts can be coordinated and parceled out to various centers according to the needs and available skilled personnel.

APPENDIX

APPENDIX A

DATA ACQUISITION AND SOURCES

The following pages contain a listing of the various avenues, people, and sources consulted in the preparation of this paper. The sequence of the items noted is not necessarily in any order in that many of these phases were concurrent in implementation and as it might be suspected are continuing for the acquisition process is dynamic and far from static, especially in the field under study.

In order to present a more readable report, the reader is asked to note the sub-divisions which contain listings and similar information following this appendix and noted as A-1, A-2, A-3 etc.

1. Letters of inquiry have been sent to all state departments of education and all cities and counties of any size in the United States. A sample of the form sent with various letters is enclosed in Appendix A-1. Relatively minor receipts of information were answered with a form thank you letter while more substantial acquisitions and personal replies received personal thank yous. The basic source for addresses was Patterson's American Education (P12).
2. All organized denominational offices were sent letters in regard to their educational and cooperative activities. Follow-through was similar to that described previously. All Roman Catholic Diocesan and Archdiocesan offices and

equivalent offices of the Lutheran churches were contacted inasmuch as these two groups operate the largest parochial school systems in the United States. The Yearbook of American Churches (Y1) and Patterson's American Education (P12) were the primary sources for these addresses. The cover letter for each of these inquiries was accompanied with the descriptive sheet noted in Appendix A-1.

3. Letters of inquiry, similar to those sent to the other stated places, were sent to all superintendents of education for Seventh-day Adventist schools in the United States. This included local and union conferences as well as the General Conference. These are listed, along with their location, in Appendix A-2 for the convenience of the reader inasmuch as the listing will serve several functions within this paper. Similar letters were sent to most of the departments of the General Conference in Washington D.C. These included:

    - Youth Activities
    - Statistical
    - Publishing
    - Audio-Visual
    - Radio-Television (now Communications)
    - Medical
    - Home Study Institute

    Addresses to these various organizations are found in the Seventh-day Adventist Yearbook (G20).

4. Other organizations of the denomination were contacted via leads from the sources listed in number three, as well as other leads. These included the following:

Washington Adventist Hospital, Takoma Park, Washington, D.C.

Porter Memorial Hospital, Denver, Colorado

Pacific Union Conference, Institutional Services, Glendale, California

General Conference, North American Division Board of Higher Education, Takoma Park, Washington, D.C.

Loma Linda University, Audio Visual Depart., Loma Linda, California

Union College, Curriculum Library, Lincoln, Nebraska

Requests for information were sent to institutions of higher education within the North American Division.

5. Inquiries were made of all the Regional Educational Laboratories and all ERIC (Educational Resource Information Center) Clearinghouses. These are noted in Appendix A-3. Much material was sent gratis and in other situations a publications list was sent. Materials were ordered, where they appeared appropriate to the theme of this topic, then studied and analyzed. Two of the educational laboratories and one of the ERIC Clearinghouses were found to be particularly germane in their information, as far as this study is concerned:
    a. Appalachia Educational Laboratory, Charleston, West Virginia
    b. Northwest Regional Educational Laboratory, Portland, Oregon

   c. ERIC Clearinghouse for Rural Education and Small Schools, New Mexico State University, Las Cruces, New Mexico

6. Various regional educational service centers were contacted with personal letters. Much valuable material was gained from these institutions, as well as contacts with other sources of information. Specialized facilities were also contacted and in some instances visited. Those centers contacted via mail or phone are listed in Appendix A-4 while those visited are in Appendix A-5. In some instances there was considerable correspondence and valuable assistance. The footnotes will give complete notation of sources while the Appendix listing will give the more noteworthy sources.
7. Many documents were obtained and searched from the ERIC (Educational Resource Information Center) microfiche collection as indexed in Research in Education and cumulated indices. Newsletters from the ERIC Clearinghouses, especially the one at Stanford University, were searched regularly for their announcements. ERIC is one of the best sources of primary source material in education in this country.
8. The Michigan State Library in Lansing was contacted and visited, and appropriate information obtained. The University of Michigan Library was also contacted. The James White Memorial Library of Andrews University with it's close to

300,000 volumes was used extensively. The professional education files were found to be of great assistance also. Preliminary research was done at the libraries of Union College, Pacific Union College, Stanford University, California State Universities at San Jose and Hayward, University of Iowa and the University of Nebraska.

9. A DATRIX computer search was made by the Xerox Corporation of Ann Arbor, Michigan, publisher of Dissertations Abstracts, a publication which includes the vast majority of doctoral theses written in the United States as well as some other countries. Keywords used in the search were:

   Regional, area, cooperative, region---and
   Service, media, resource, material---and
   Center, unit, councils, agency, district, council, districts

   A bibliography of those studies found to have been written in the last twenty years is included in Appendix A-6. Those studies deemed to be of direct value were ordered either as printouts or as microfilm, then studied and analyzed (X2; X3). Bibliographic as well as contextual leads were checked and in many cases letters were written or references searched out in the library.

10. Contact was made by letter and long distance phone with the United States Office of Education regarding materials and possible use of computer time. Offer was made for such

possible use if the ERIC and DATRIX searches were inadequate.

11. The two major educational indexes to periodicals were searched with emphasis being upon the last two decades. All probable topics were searched for possible information of value. Two periodicals were found to have considerable material on this subject: *Compact* and the *Journal on State School Systems*. *Audiovisual Instruction* was also of considerable help, as were the *Rural Education Newsletters*.

12. Private interviews and conversations were made with members of various facets of the educational profession as well as other professionals and technicians in order to obtain a broad point of view. These include the following positions:

    superintendents
    curriculum librarians
    higher education coordinators
    teachers
    college professors
    regional center directors
    denominational center directors
    principals
    audiovisual directors
    computer directors
    television personnel
    librarians
    film librarians
    supervisors

    . . . as well as many others. Reference is made to many of these within this paper. Appendix A-7 lists some of those contacted.

13. During the writing of this paper and the early research in preparation for the writing, the author attended the

following conventions and meetings, which were of great assistance in obtaining ideas, references, professional contacts, etc.:

a. National Convention of the Department of Audiovisual Instruction of the National Education Association, Detroit, Michigan.

b. National Convention of the American Association of School Administrators at Atlantic City, New Jersey.

c. National Convention of the Association for Educational Communication and Technology at Philadelphia, Penn.

d. National Convention of the American Library Association at Detroit, Michigan.

e. State Convention of the Michigan Library Association at Lansing, Michigan.

f. Michigan Association of School Librarians and the Michigan Audiovisual Association joint convention, Grand Rapids, Michigan.

g. Midwestern Library Conference at Chicago, Illinois.

h. Many meetings of the Berrien County Cooperative Librarians Association in Berrien County, Michigan.

i. Utilization Conferences, Planning Board and similar meetings of the Nebraska Educational Television Council for Higher Education at Lincoln, Nebraska.

APPENDIX A-1

SUBJECT: Doctoral Thesis of Richard K. Powell, P. O. Box 174, Andrews University, Berrien Springs, Mich. 49104

THESIS TOPIC: "The Problem of Regional Education Service Centers in the U.S.A. with Special Reference to the Seventh-day Adventist School System."

GENERAL OBJECTIVE: To study various co-operative programs, educational service centers, regional service units, media centers etc. and apply what is learned to proposed co-operative programs within the Seventh-day Adventist school system.

TYPES OF PROGRAMS UNDER CONSIDERATION (suggestive):

1. Media services--distribution, production, cataloging (print and non-print)
2. Instructional T.V.
3. Consultation services--instructional and administrative
4. Pool purchasing, co-operative equipment utilization
5. Special education programs
6. Health services
7. Co-operative business and accounting procedures, shared time for computers
8. Contracting of services to other agencies
9. Shared teacher and librarian programs, such as art, music, P.E., circuit librarians etc.
10. Research, statistical studies, survey etc.
11. Psychological and testing services
12. School planning, site selection assistance etc.
13. Redistricting, reorganization plans for more effective utilization of funds and personnel

TYPES OF MATERIALS NEEDED:

Any materials or suggestions along the lines suggested above and other sources, bibliographies etc. would be appreciated. Where there is a charge involved, kindly let us know prior to shipment for items for the teaching materials center must be ordered through the proper channels.

When possible, we would appreciate duplicate pamphlets when the topic involves the thesis topic, thus one copy for the university file, one for the writers file and easy retrieval while working on the thesis etc.

Again, where practical, the author would like to visit outstanding programs in progress, thus any suggestions would be welcome. The writer would also like to write for specific materials or information to unique and representative departments or institutions.

The emphasis in the study will be upon the multi-media phases, though not to the exclusion of the other for in most instances the services centers seem to be more inclusive.

Any ideas or materials you may be able to provide will be very much appreciated. It is hoped that the materials and ideas gathered and collated will be of more value than just being "another musty thesis," but rather may spark more co-operative efforts among the church's schools and possibly assist in boosting quality education, yet alone maintain their status quo in this age of rising costs and standards.

APPENDIX A-2

CONFERENCE OFFICES

Union Conference offices (serving several states), Local conferences typically serve one state, with some exceptions.

1. Atlantic Union Conference, South Lancaster, Massachusetts.
    a. Bermuda Mission, Hamilton, Bermuda
    b. Greater New York Conference (City), New Hyde Park, New York
    c. New York Conference, Syracuse, New York
    d. Northeastern Conference (Blacks), New York, New York
    e. Northern New England Conference, Portland, Maine
    f. Southern New England Conference, South Lancaster, Mass.
2. Canadian Union Conference, Oshawa, Ontario
    a. Alberta Conference, Calgary, Alberta
    b. British Columbia Conference, Mission City, British Columbia
    c. Manitoba-Saskatchewan Conference, Saskatoon, Saskatchewan
    d. Maritime Conference, Moncton, New Brunswick
    e. Ontario-Quebec Conference, Oshawa, Ontario
    f. St. Lawrence Mission (French speaking), Montreal, Quebec
    g. Seventh-day Adventist Church in Newfoundland, St. John's Newfoundland
3. Central Union Conference, Lincoln, Nebraska
    a. Central States Conference (Blacks), Kansas City, Missouri
    b. Colorado Conference, Denver, Colorado

   - c. Kansas Conference, Topeka, Kansas
   - d. Missouri Conference, Kansas City, Missouri
   - e. Nebraska Conference, Lincoln, Nebraska
   - f. Wyoming Conference, Casper, Wyoming

4. Columbia Union Conference, Takoma Park, Maryland
   - a. Allegheny East Conference (Black), Pine Forge, Pennsylvania
   - b. Allegheny West Conference (Black), Columbus, Ohio
   - c. Chesapeake Conference, Columbia, Maryland
   - d. New Jersey Conference, Trenton, New Jersey
   - e. Mountain View Conference, Parkersburg, West Virginia
   - f. Ohio Conference, Mt. Vernon, Ohio
   - g. Pennsylvania Conference, Reading, Pennsylvania
   - h. Potomac Conference, Staunton, Virginia
5. Lake Union Conference, Berrien Springs, Michigan
   - a. Illinois Conference, Brookfield, Illinois
   - b. Indiana Conference, Indianapolis, Indiana
   - c. Lake Region (Blacks), Chicago, Illinois
   - d. Michigan Conference, Lansing, Michigan
   - e. Wisconsin Conference, Madison, Wisconsin.
6. North Pacific Union Conference, Portland, Oregon
   - a. Alaska Mission, Anchorage, Alaska
   - b. Idaho Conference, Boise, Idaho
   - c. Montana Conference, Bozeman, Montana
   - d. Oregon Conference, Portland, Oregon
   - e. Upper Columbia Conference, Spokane, Washington
   - f. Washington Conference, Seattle, Washington

7. Northern Union Conference, Minneapolis, Minnesota
    a. Iowa Conference, Des Moines, Iowa
    b. Minnesota Conference, St. Paul, Minnesota
    c. North Dakota Conference, Jamestown, North Dakota
    d. South Dakota Conference, Pierre, South Dakota
8. Pacific Union Conference, Glendale, California
    a. Arizona Conference, Phoenix, Arizona
    b. Central California Conference, San Jose, California
    c. Hawaiian Mission, Honolulu, Hawaii
    d. Nevada-Utah Conference, Reno, Nevada
    e. Northern California Conference, Pleasant Hill, California
    f. Southeastern California Conference, Riverside, California
    g. Southern California Conference, Glendale, California
9. Southern Union Conference, Decatur, Georgia
    a. Alabama-Mississippi Conference, Meridien, Mississippi
    b. Carolina Conference, Charlotte, North Carolina
    c. Florida Conference, Orlando, Florida
    d. Georgia-Cumberland Conference, Decatur, Georgia
    e. Kentucky-Tennessee Conference, Madison, Tennessee
    f. South Atlantic Conference (Blacks), Atlanta, Georgia
    g. South Central Conference (Blacks), Nashville, Tennessee
10. Southwestern Union Conference, Richardson, Texas
    a. Arkansas-Louisiana Conference, Shreveport, Louisiana
    b. Oklahoma Conference, Oklahoma City, Oklahoma
    c. Southwest Region Conference (Blacks), Dallas, Texas

d. Texas Conference, Fort Worth, Texas

e. Texico Conference, Amarillo, Texas (G20)

APPENDIX A-3

REGIONAL EDUCATIONAL LABORATORIES AND ERIC CLEARINGHOUSES

Regional Educational Laboratories:

Appalachia Educational Laboratory, Charleston, West Virginia

Center for Urban Education, New York, New York

Central Midwestern Regional Educational Laboratory, St. Ann, Mo.

Eastern Regional Institute for Education, Syracuse, New York

The Far West Laboratory for Educational Research and Development, Berkeley, California

Mid-Continent Regional Educational Laboratory, Kansas City, Mo.

Northwest Regional Educational Laboratory, Portland, Oregon

Regional Educational Laboratory for the Carolinas and Virginia, Durham, North Carolina

Research for Better Schools, Inc., Philadelphia, Pennsylvania

Rocky Mountain Educational Laboratory, Greeley, Colorado

Southwestern Educational Laboratory, Atlanta, Georgia

Southwest Regional Laboratory for Educational Research and Development, Austin, Texas

Southwestern Cooperative Educational Laboratory, Albuquerque, New Mexico

Upper Midwest Regional Educational Laboratory, Minneapolis, Minn.

ERIC Clearinghouses: (As of 1972)

Adult Education--Syracuse University

Counseling and Personnel Services--University of Michigan

Disadvantages--Teachers College, Columbia University

Early Childhood Education--University of Illinois

Educational Management--University of Oregon

Educational Media and Technology--Stanford University

Exceptional Children--Council for Exceptional Children

Higher Education--George Washington University

Junior Colleges--University of California at Los Angeles

Library and Information Sciences--American Society for Information Science

Linguistics--Center for Applied Linguistics

Reading--Indiana University

Rural Education and Small Schools--New Mexico State University

Science and Mathematics Education--Ohio State University

Social Science Education--Social Sciences Building (Colorado)

Teacher Education--1 DuPont Circle, Washington, D.C.

Teaching of English--National Council of Teachers of English

Teaching of Foreign Languages--Modern Language Association of America

Tests, Measurement, and Evaluation--Educational Testing Service

Vocational and Technical Education--Ohio State University

(Since the inquiries, Reading and English have been combined under the auspices of the National Council of Teachers of English; all media is at Stanford University, Career education is at Northern Illinois University).

APPENDIX A-4

SELECTIVE LIST OF INSTITUTIONS, ORGANIZATIONS AND PEOPLE WHO RESPONSED IN A SUBSTANTIAL WAY TO INQUIRIES

Religions Respondents

Archdiocese of Atlanta (Roman Catholic), 756 W. Peachtree N.W. Atlanta, Georgia

Archdiocese of New York, Dept. of Education, 31 E. 50th St., New York, New York

Board of Education, United Methodist Church, Division of the Local Church, P.O. Box 871, Nashville, Tennessee

Christian Associates of Southwestern Pennsylvania, 401 Wood St., Pittsburgh, Pennsylvania

Church of Jesus Christ of Latter Day Saints, General Services Building, Provo, Utah

Department of Christian Formation (Roman Catholic), Grumball Rd., Savannah, Georgia

Diocese of Bellville (Roman Catholic) Religious Education Office, 310 N. 10th Street, E. St. Louis, Illinois

Diocese of Bismarck (Roman Catholic), Office of Education, 304 Avenue "A", Bismarck, North Dakota

Diocese of Houston, Office of Education, Houston, Texas

Diocese of Youngstown (Roman Catholic), Educational Department, Confraternity of Christian Doctrine, 144 Wood St., Youngstown, Ohio

Ecumenical Resource Center, Rochester, New York

Hirst, Robert, Director of Health Education, Porter Hospital, Denver, Colorado

Lutheran Church, Missouri Synod, Iowa District West, 1317 Tower Drive, Fort Dodge, Iowa

National Association of Christian Schools, Box 28, Wheaton, Illinois

Reorganized Church of Jesus Christ of Latter Day Saints, The Auditorium, Independence, Missouri

Romero, G. W., Director of Educational Communications, Washington Sanitarium and Hospital, Takoma Park, Maryland

Teaching Learning Center, Calvary Presbyterian Church, Virginia St., Berkeley, Calif. (also Livermore and Mountain View)

Teaching Learning Center, Auspices of the Synod of the Chesapeake, United Presbyterian Church, U.S.A., 320 Hillen Rd., Baltimore, Maryland and the Christian Educational Task Force of Wilmington, Delaware

Major Public Institutions and Commercial Respondents

Anne Arundel County Schools, Annapolis, Maryland

Appalachia Educational Laboratory, P.O. Box 1348, Charleston, W. Va.

Bell Telephone Laboratories

Betz, Loren, Director of School Plant Services, State of Nebraska, State Capitol, Lincoln, Nebraska

Bibb County Board of Education, Instructional Materials Center, 2658 Houston Avenue, Macon, Georgia

BOCES Unit, First Supervisory District of Erie County, Buffalo, New York

BOCES Unit of Nassau County, Jericho, New York

BOCES Unit of Rockland County, West Nyack, New York

Boulder Valley School District, Boulder, Colorado

Colorado Springs Public Schools, Colorado Springs, Colorado

DARCEE--Demonstration and Research Center for Early Education, George Peabody College for Teachers, Nashville, Tennessee

EDICT, Supplementary Educational Center, Fresno County Department of Education, Fresno, California

Educational Service Center for Dorchester, Somerset, and Wicomico Counties, Salisbury, Maryland

Educational Service Unit Number 12, Board of Educationa, P.O. Box 539, Alliance, Nebraska

Great Plains Instructional Television Library, University of Nebraska, Lincoln, Nebraska

Great Plains School District Reorganization Project, 411 S. 13th St., Lincoln, Nebraska

Grimes, George H., Detroit Public Schools, Detroit, Michigan

Greater Portland Region Public Schools, Portland, Maine

Hanson, Ellis, Dept. of Public Instruction, State of Iowa, Des Moines, Ia.

Louisiana State Department of Education, Baton Rouge, Louisiana

Louisville Board of Education, Louisville, Kentucky

Michigan-Ohio Regional Educational Laboratory (MOREL), Detroit, Mich.

Nebraska Educational Television Council for Higher Education (NETCHE), University of Nebraska, Lincoln, Nebraska

New Hampshire Supervisory Union 29, One Elm St., Keene, New Hampsire

New York State Dept. of Education, Bureau of School District Reorganization, Albany, New York

North Bay PACE Center, Napa, California

Northern California Small High School Project, P.O. Box 810, Red Bluff, California

Oakland County Media Center, County Education Complex, Pontiac, Mich.

Panhandle Educational Research Center, Chadron State College, Chadron, Nebraska

Pittsburgh Regional Library Center, Beatty Hall, Chatham College, Pittsburgh, Pennsylvania

Pontiac School District, Instructional Materials Center, Pontiac, Michigan

Regional Educational Service Center Number 10, Board of Education, Linn County, Cedar Rapids, Iowa

Rural Education Association, National Education Association, 1201 16th St. N.W., Washington, D.C.

St. Louis County, Office of the Superintendent of Education, Court House, Duluth, Minnesota

Southeast Educational Service Center (SESC), Sioux Falls, South Dakota

Southwest Wisconsin Regional Planning Commission, Waukeska, Wisconsin

Spies, Jack, Department of Educational Administration and Supervision, University of Toledo, Toledo, Ohio

Stephen, E. R., Department of Educational Administration, Jefferson Building, University of Iowa, Iowa City, Iowa

Texas Educational Agency, Austin, Texas

Wisconsin Department of Public Instruction, Madison, Wisconsin

Additional General Information was Received from the following School Systems:

Akron, Ohio
Berkeley, California
Boston, Massachusetts
Boise, Idaho
Warwick, Rhode Island
Wilmington, Delaware
Michigan State Dept. Ed.
Missouri State Dept.
Oklahoma State Dept.
Vermont State Dept.
California State Dept.
Baltimore, Maryland
Berrien Springs, Michigan
Decatur, Alabama
San Francisco, California
WCTI, Chattanooga, Tennessee
Worcester, Massachusetts
Minnesota State Dept.
New Mexico State Dept.
Pennsylvania State Dept.
Virginia State Dept.

APPENDIX A-5

CENTERS VISITED

Archdiocese of Detroit Multi-media Center, Detroit, Michigan

Berrien County Intermediate District Media Center and Administrative Offices, Berrien Springs, Michigan

*Burke High School Media Center--library, DIAL Access facility, Media Production Center, Omaha, Nebraska

California State University at Hayward: Library and media facilities, Hayward, California

California State University at Sacramento: Library, Map collection, Science Teaching Center, Audiovisual Center and Curriculum Room, Sacramento, California

California State University at San Jose: Library, Education Collections, Audiovisual Center, Instructional Television facilities, San Jose, California

Calvin College Curriculum Laboratory, Grand Rapids, Michigan

Chabot College: Library, Learning Center and Media Collection, Hayward, California

Detroit Public Schools Curriculum Center and Administrative Offices, Detroit, Michigan

Kent Intermediate Media Center, Grand Rapids, Michigan

Kent Intermediate Vocational Center, Grand Rapids, Michigan

KUON-TV, Educational Television Center for Nebraska, Videotape Library and Facilities, Lincoln, Nebraska

Lake Michigan College: Library, DIAL Access Facility, Benton Harbor, Michigan

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*Designed for regional use.

Lincoln Public Schools Media Center: Processing Facilities, Lincoln, Nebraska

Lincoln Public Schools: East High School Media Center, Lincoln, Nebraska

Michigan State University: Audiovisual Center, Curriculum Center, Science Teaching Materials Center, Individualized Study Facilities, Regional Center for the Handicapped, E. Lansing, Michigan

Michigan State Library: Library, State-wide Research Service Facility, State-wide Service Center for Prisons and the Hard of Seeing and Blind, Lansing, Michigan

Nebraska Educational Television Council for Higher Education: Facilities and Services for Colleges and Universities, Lincoln, Nebraska

Oakland County Media Center: School Libraries Collection, Microforms Collection, Media Collections and Media Production Facilities, Pontiac, Michigan

Pacific Union College: Audiovisual Center, Library and Curriculum Collection, Angwin, California

Santa Clara County Audiovisual Center: Film and Media Collections and Processing, San Jose, California

Sonoma County Media Center and Special Education Component, Santa Rosa, California

Sonoma State College: Library, Curriculum Center, Record Center, Cotati, California

Stanford University: Library and School Planning Laboratories, Palo Alto, California

Union College: Library, Curriculum Centers, Audiovisual and Instructional Television Facilities, Lincoln, Nebraska

University of Iowa: Library, Curriculum Center, Education Collection, Audiovisual Teaching Facilities, Film Center, Iowa City, Iowa

University of California at Davis: Library, Curriculum Center, Audiovisual Center, Davis, California

Western Michigan University: Education Library, Audiovisual Center, Kalamazoo, Michigan

APPENDIX A-6

DATRIX REFERENCE LISTING
(A computer search of doctoral theses from Xerox)

The keywords used in the search were as follows:

regional, area, cooperative, region
and
service, media, resource, material
and
center, unit, councils, agency, district, council, districts

The results of the search, less prices etc. but including the volume and page of the abstract as found in Dissertation Abstracts (i.e. 2810A-3951---2810A referring to the volume and 3951 to the pages) are as follows:

Becker, Earl Arthur, An Appraisal of Administrative Practices for the Acquisition and Distribution of Materials in the Regional Instructional Materials Centers of Pennsylvania, Lehigh University (2611-6460)

Belton, John Raynor, Organization and Administration of Intermediate Unit Cooperative Educational Service Centers in Wisconsin, Marquette University (2908A-2463)

Bernstein, Louis R., A Study of Group Status as a Factor in Inter-Group Conflict: An Analysis of Institutionalization of Disputed Areas in Relationship Between Labor and Management as Seen Through a Study of the Emergence and Development of the Dress Industry Placement Unit of the New York State Employment Service, New York University (1301-131)

Berry, Brian Joe Lobley, Shopping Centers and the Geography of Urban Areas. A Theoretical and Empirical Study of the Spatial Structure of Intraurban Retail and Service Business, University of Washington (1904-767)

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APPENDIX A-7

SELECTED LIST OF PEOPLE CONTACTED IN PERSON

Barkmeier, Doyle, Superintendent of Schools, Berrien County Intermediate School District, Berrien Springs, Michigan

Botton, Leroy, Director of the Computing Center, Andrews University, Berrien Springs, Michigan

Ellsworth, Keith, Teacher and Audiovisual specialist, Allegan, Michigan

Hutcheson, David W., Associate Professor of Education, University of Nebraska, formerly Chief of Field Services, State of Nebraska

Knipschild, John F., Director of Institutional Services, Pacific Union Conference, Glendale, California; visiting professor Pacific Union College and conference superintendent in several conferences in the past

Knudsen, Russell, Chairman of Business Department, Andrews University Academy, formerly principal

Marcia, Mary, Director of the Mutli-media Center for the Archdiocese of Detroit, Michigan

Moore, Raymond, Director of the Hewitt Research Center, Berrien Springs, Michigan; formerly an Educational Research and Program Specialist with the Bureau of Higher Education, U.S. Office of Education; College president, Chairman of Education Department, School Superintendent, Academic Dean

Morse, Joyce, Educational Supervisor for the Central Union of Seventh-day Adventists, Lincoln, Nebraska; formerly a teacher

Nesmith, Deforest, Curriculum Librarian at Union College, Lincoln, Nebraska, formerly a teacher and librarian on the secondary level.

Schroeder, William, professor at Mankato State University, Minnesota, formerly Chief of Field Services for the State of Nebraska

Stephan, Fred R., Superintendent of Education of the Lake Union Conference of Seventh-day Adventists

Storz, Ethel A., Librarian at Mountain View Union Academy, Mountain View, California, specialist in regional libraries and media centers

Tharp, Paul Russell, T.V. Project Director, Loma Linda University, Loma Linda, California; formerly with the Audiovisual Service of the National Educational Association, Washington, D.C.

Van Duinen, Donald, Principal of the Elementary Laboratory School, Andrews University and doctoral candidate in educational media at Michigan State University

Wallace, Keith, Director of Audiovisual Services, Pacific Union College, Angwin, California

The range of other persons with whom the concepts of this paper have been discussed have been noted in the earlier portion of this section, however, a few specific people will be noted by position in order to further round-out the investigation:

The director and assistant of the media processing center for South Bend, Indiana.

Scores of teachers and principals on all levels from Michigan, Indiana, Wisconsin and Illinois.

Many Seventh-day Adventist pastors and church leaders.

Several nurses and nursing instructors as well as other medical personnel (California, Michigan and Illinois)

A navy supply officer who currently has about 200 men working under him. Also an ex-navy supply officer and specialist in computing.

A graduate student in business administration

APPENDIX B

REGIONAL ARRANGEMENTS IN SELECTED STATES

The configurations noted in the following maps represent many types of regional programs. In some cases the maps are for proposed units whilst in others they cover active regions. One must also keep in mind that some of these regions are composed of voluntary participants, thus the entire territory within the confines of the region may not be involved in the program.

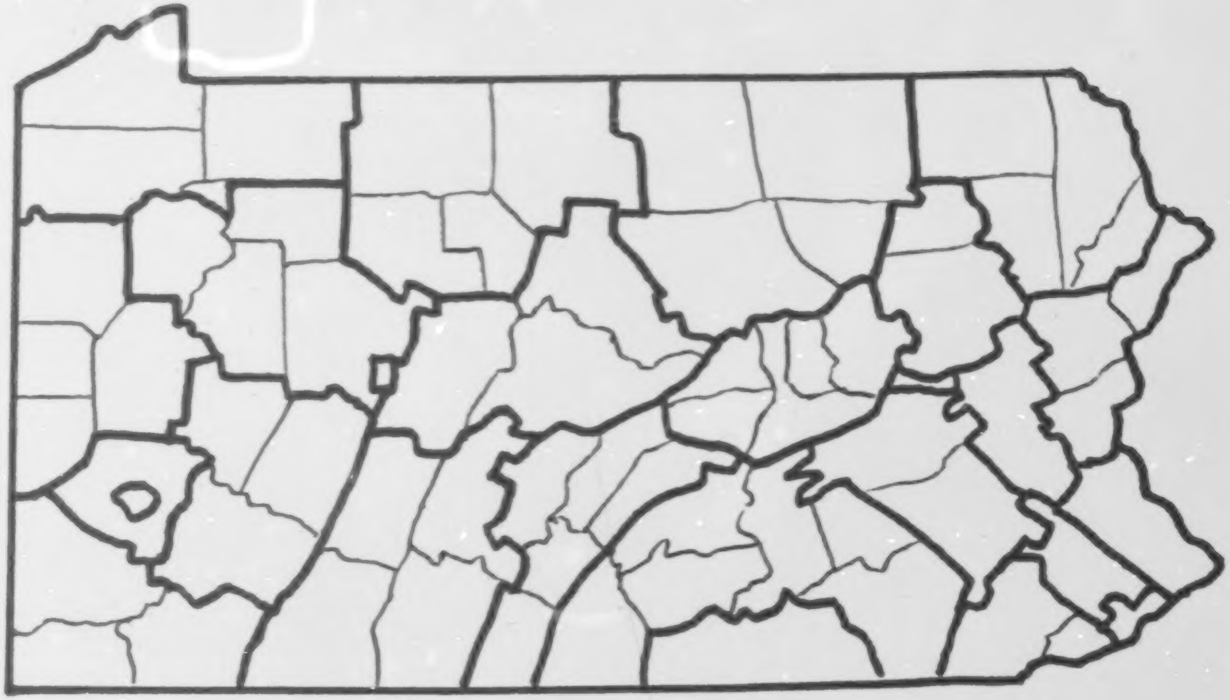

FIG. 8. INTERMEDIATE UNITS AS PROPOSED FOR PENNSYLVANIA BY THE STATE BOARD OF EDUCATION

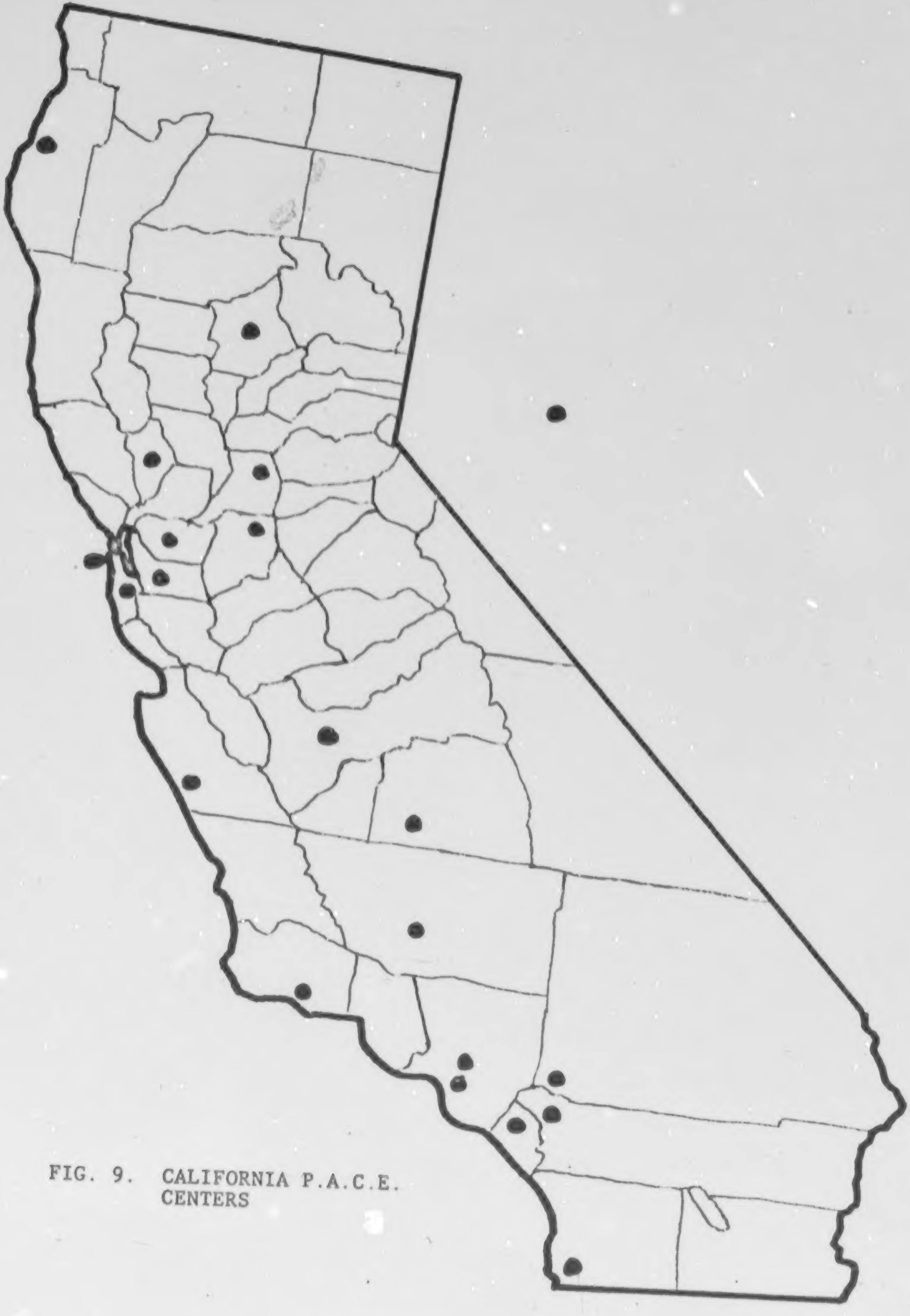

FIG. 9. CALIFORNIA P.A.C.E.
CENTERS

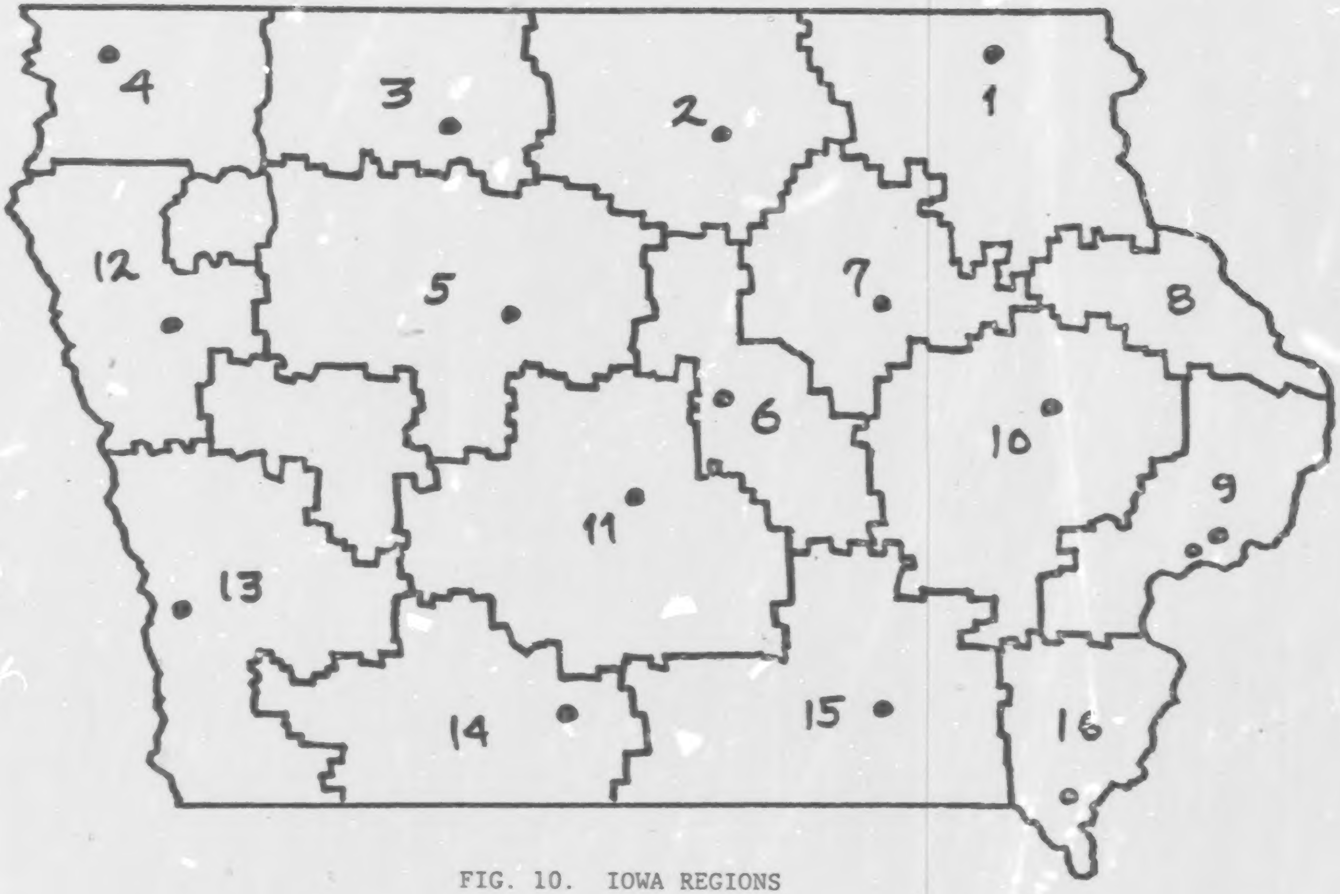
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FIG. 10. IOWA REGIONS

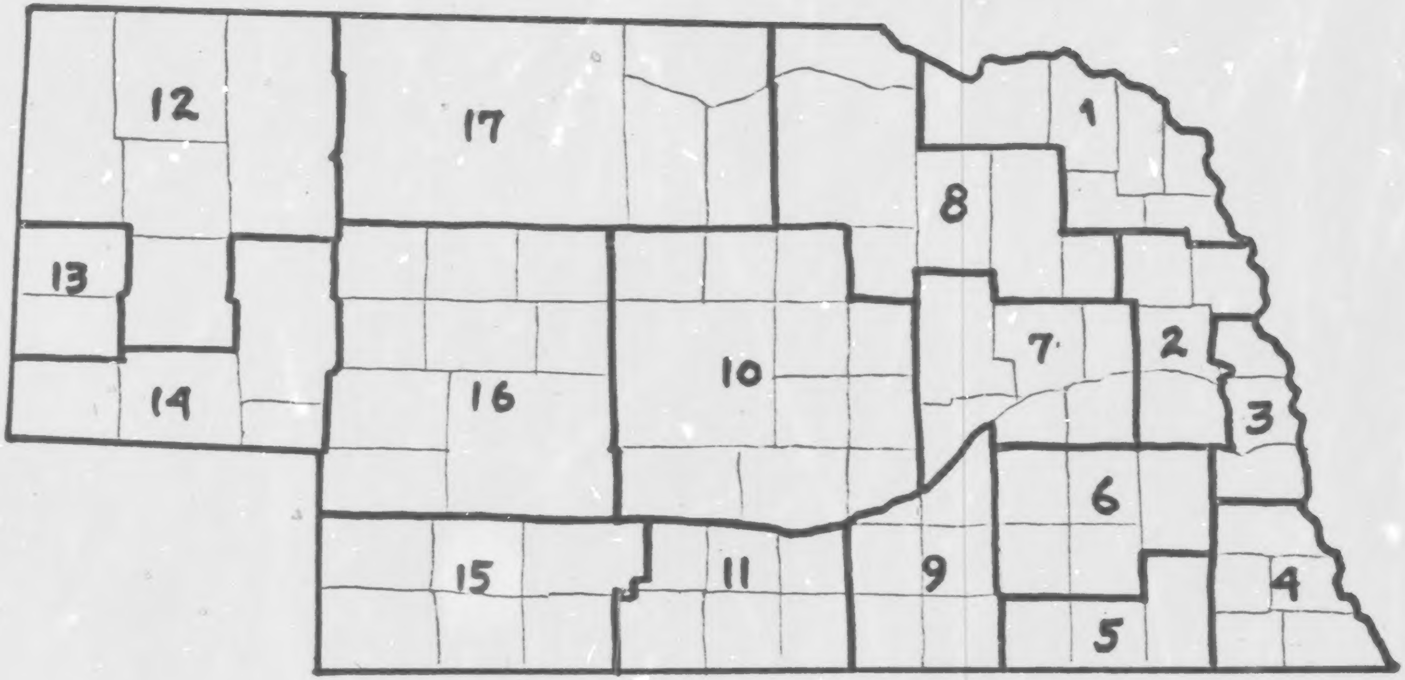
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FIG. 11. NEBRASKA EDUCATIONAL SERVICE UNITS

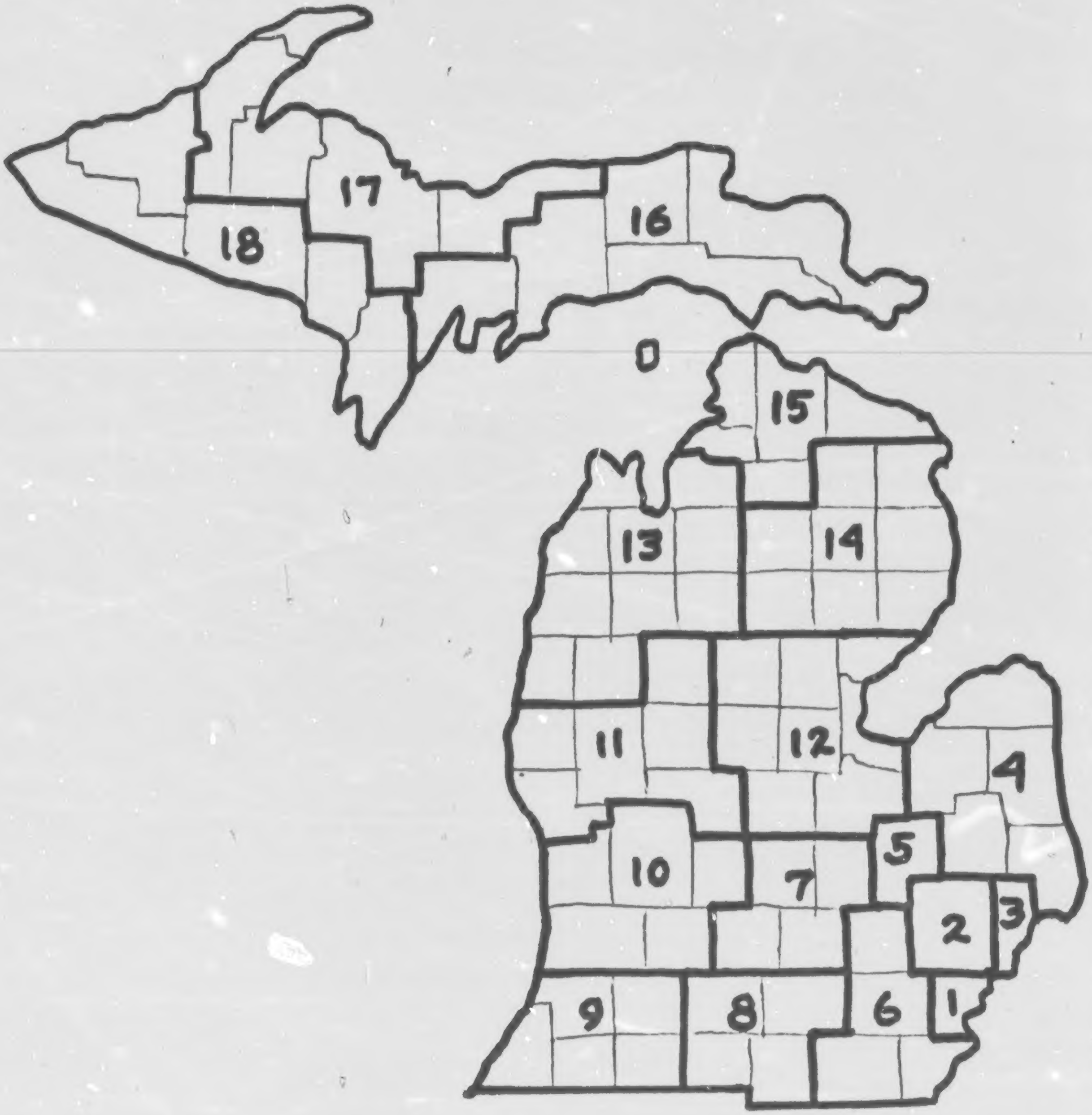
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FIG. 12. AREA DESIGNATIONS FOR MICHIGAN

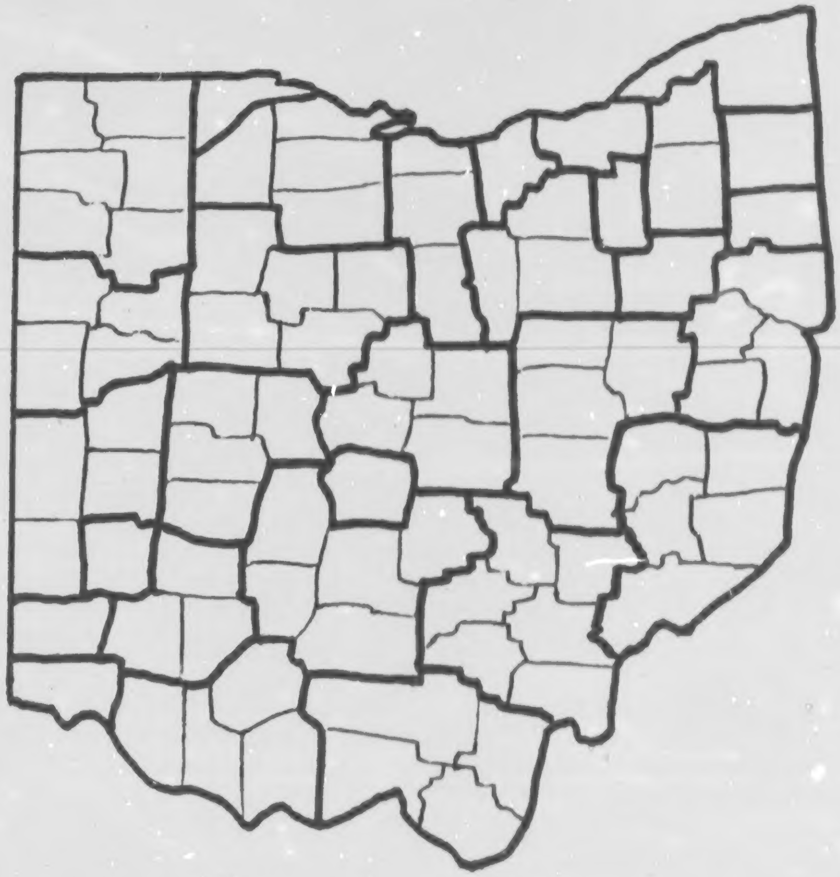

FIG. 13. TRANSPORTATION COORDINATION REGIONS IN OHIO

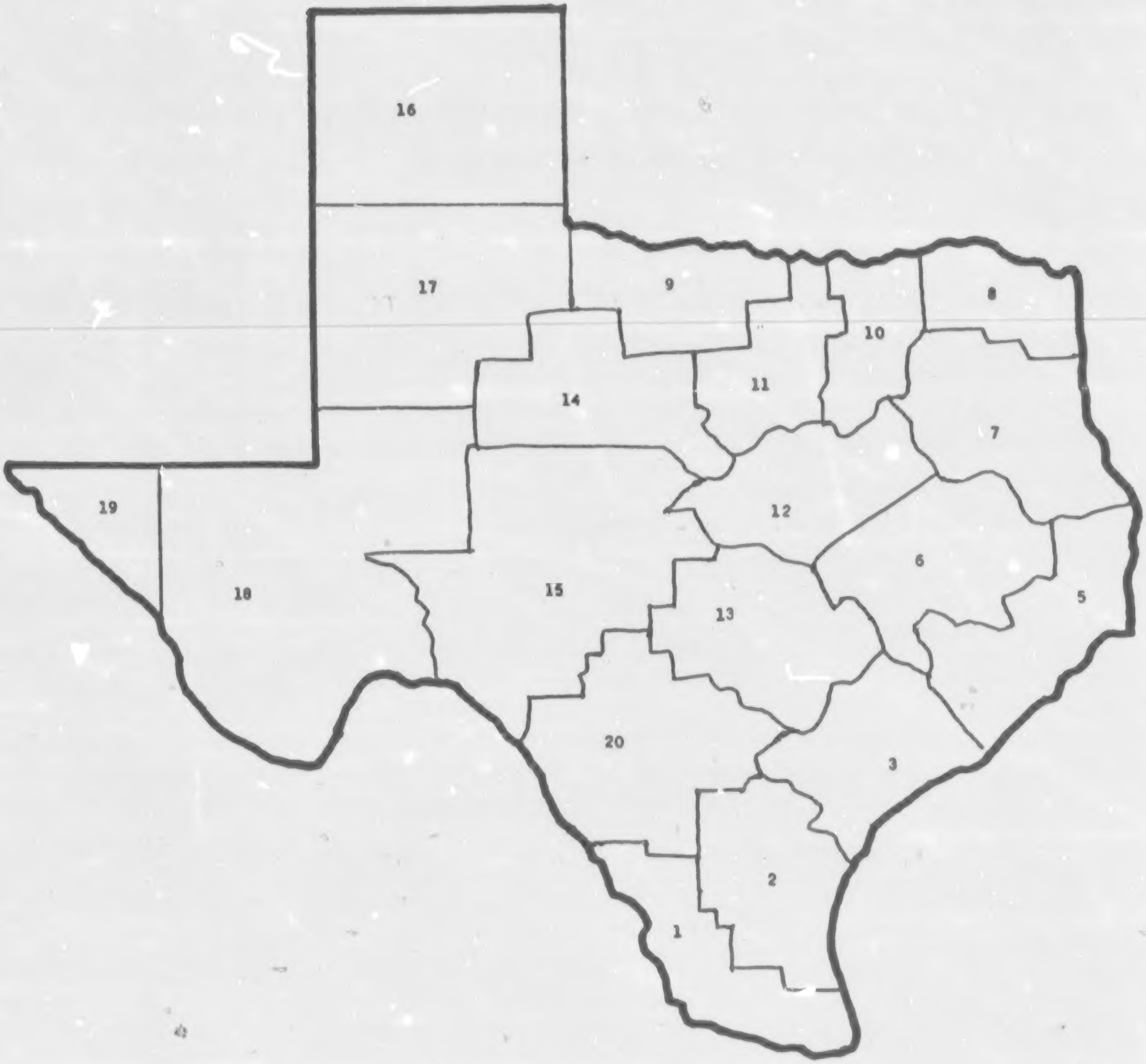
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FIG. 14. EDUCATIONAL SERVICE CENTERS IN TEXAS

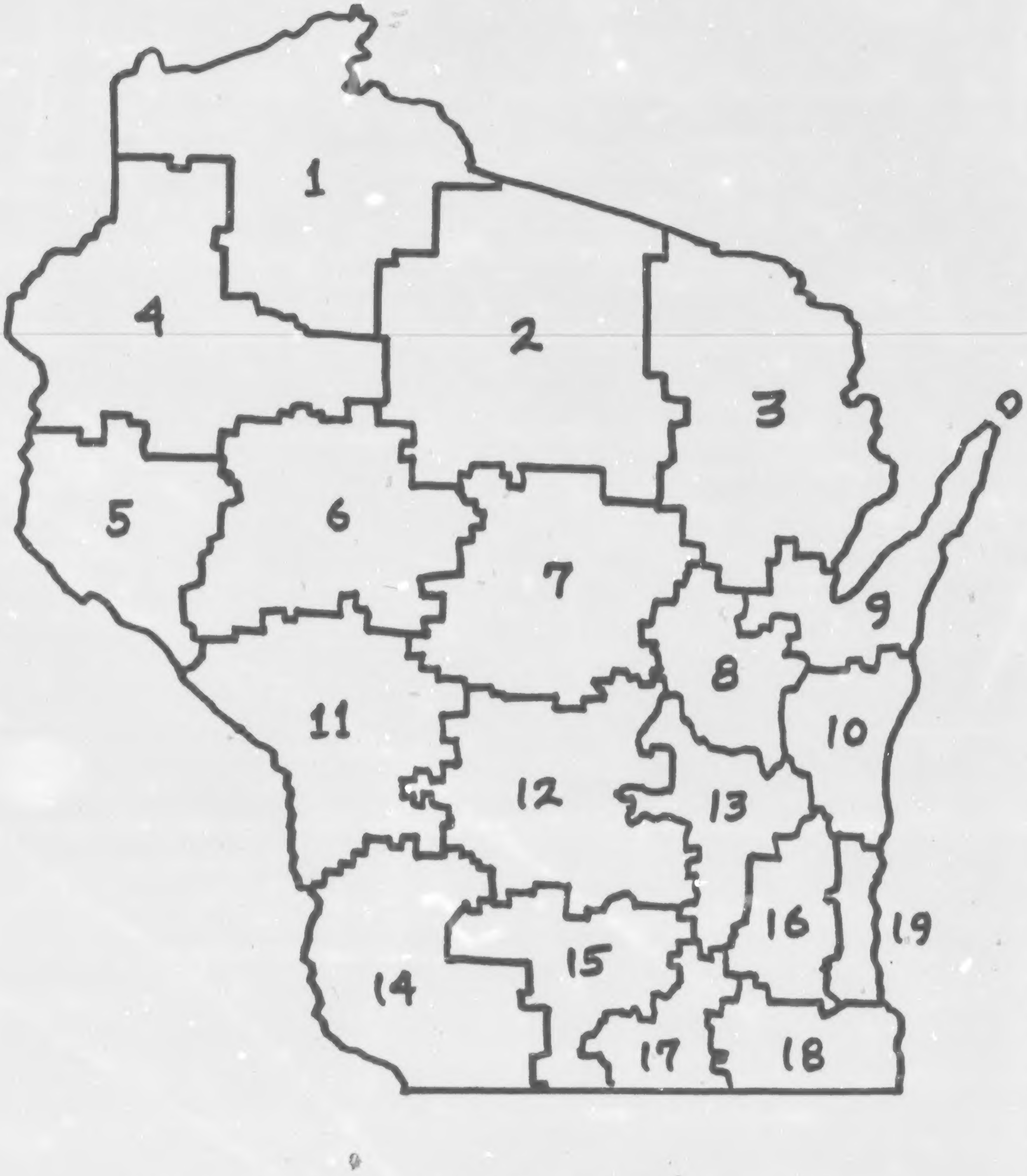
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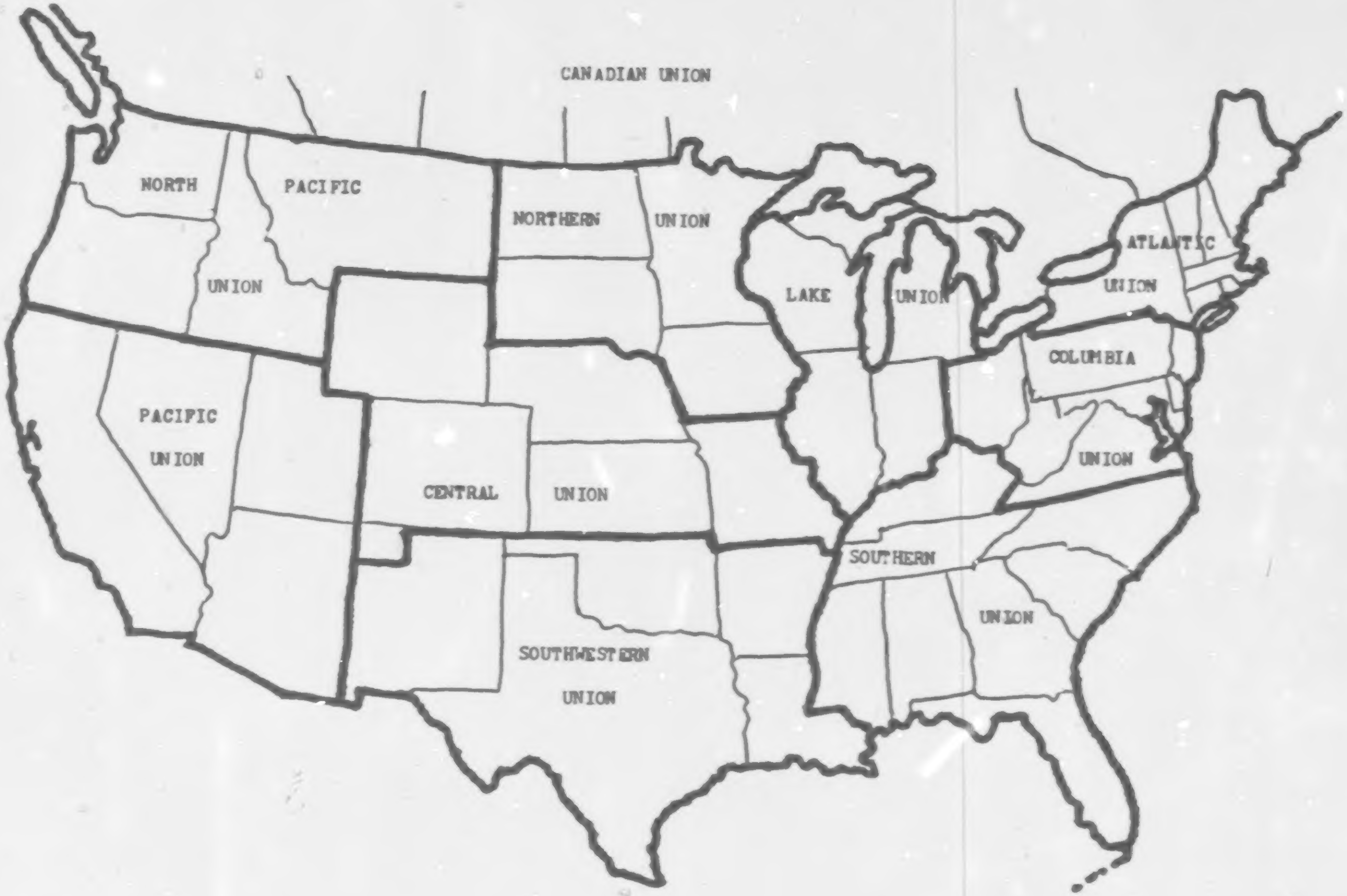
FIG. 15. WISCONSIN COOPERATIVE EDUCATIONAL SERVICE AGENCIES

APPENDIX C


CANADIAN UNION
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COLUMBIA
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PACIFIC
UNION
CENTRAL
UNION
SOUTHERN
UNION
SOUTHWESTERN
UNION

FIG. 16. SEVENTH-DAY ADVENTIST UNION CONFERENCES COMPRISING THE NORTH AMERICAN DIVISION OF THE GENERAL CONFERENCE

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P21 Bostlethwait, S. N., J. Novak and H. T. Murray, Jr. *The Audio-Tutorial Approach to Learning*, second edition. Minneapolis: Burgess, 1969.

P22 Powell, Chester Don, artist and architectural designer in California, while doing work for the Central and Northern California Conferences of Seventh-day Adventists, decades of the late 40's, 50's and 60's.

P23 Powell, Richard K. *Educational Specifications for a Proposed Educational Service Center to Serve the Seventh-day Adventist Institutions of the Greater Bay Area of California*, a paper written at the Teacher's College of the University of Nebraska, 1968.

P24 __________. *Layout of Libraries*, a paper written for a course in School Library Administration at San Jose State College (Now California State University at San Jose), Summer 1966.

P25 __________. *A New Approach to the Secondary Curriculum in Seventh-day Adventist Schools*, a paper written for a course at Pacific Union College, Graduate School, 1962.

P26 __________. *The Role of the Summer Camp in the Development of the Child*, a paper written for a course at the Pacific Union College, Graduate School, 1962.

P27 __________. Speaking as a native son and resident of California for about 36 years, having lived in all major areas of the Bay Area as well as the Sacramento and San Joaquin Vallies. Shorter periods of time were spent in the Los Angeles area and the Sierra Nevada Mountains.

P28 __________. Speaking as a teacher and youth worker in Bakersfield and the Kern County area of California from 1955 to 1957.

P29 __________. Speaking as a teacher and church worker in Modesto and the Tuolumne County area of California from 1957 to 1961.

P30 __________. Speaking as a teacher, principal, librarian, assistant minister, summer camp worker etc., for 13 years in the Central and Northern California Conferences of Seventh-day Adventists.

P31 __________. Speaking as principal-teacher of the Salinas-Monterey Union School, Salinas, California, school year of 1965-1966.

P32 __________. Speaking as a resident of the San Francisco Bay Area for a major portion of his life. Observations made during the tours and classes mentioned.

P33 __________. Working with a study during the summer of 1967 at San Jose with the San Jose Central Seventh-day Adventist Church and the Central California Conference of Seventh-day Adventists.

P34 __________. Speaking as a teacher and minister in the Greater Baltimore, Maryland area during 1953 to 1955.

P35 __________. Speaking as an assistant librarian and instructor in education at Andrews University, Berrien Springs, Michigan, 1969 to 1973.

P36 __________. Speaking as a member of the Andrews University Committee for the Twin Cities Area Child Care Centers, Inc., Benton Harbor, Michigan, 1970-1971.

P37 __________. In conversations with teachers and ex-teachers in the Benton Harbor, Michigan public school system during 1969 to 1973.

P38 __________. Observations from living in southwestern Michigan and traveling in other portions of the state for four years, 1969 to 1973.

P39 __________. While NETCHE (Nebraska Educational Television Council for Higher Education) Instructional Television Coordinator at Union College during the 1968-1969 school year, Lincoln, Nebraska. Additional first-hand observations at station KUON-TV in Lincoln and at NETCHE Utilization Conferences, Board Meetings, etc.

P40 __________. In a final report sent to the faculty and administration of Union College in regard to the activities of the office of instructional television. Lincoln, Nebraska, May 23, 1969.

P41 __________. Observations while living in Nebraska for about one year, 1968-1969.

P42 __________. First hand observations while teaching in Arkansas, Maryland and California since 1950.

P43 __________. Speaking as a worker and visitor at various times at the Soquel Campground, Santa Cruz County, California. Also as visitor at Grand Ledge Campgrounds in Michigan and smaller units in Pennsylvania, Maryland and California.

P44 __________. Direct observations of facilities at Washington Adventist Hospital, Washington, D.C., Glendale Adventist Hospital, Glendale, Calif., Hinsdale Sanitarium and Hospital, Hinsdale, Ill., Feather River Sanitarium and Hospital, Paradise, Calif., Loma Linda Sanitarium and Hospital, Loma Linda, Calif., St. Helena Sanitarium and Hospital, St. Helena, Calif., Portland Adventist Hospital, Portland, Ore., etc.

P45 __________. In tours and observation of facilities of the Review and Herald Publishing Association in Washington, D.C. and Pacific Press Publishing Association, Mountain View, Calif. Visitation and questioning of personnel at the Christian Record Benevolent Association (Blind Publications) and Southern Publishing Association of Lincoln, Neb. and Nashville, Tenn., respectively. Also observed school presses at Pacific Union College, Columbia Union College, Andrews University, Monterey Bay Academy, Lodi Academy, etc.

P46 __________. In tours and discussions, as well as volunteer work, at the Quiet Hour Radio group while in Oakland, Calif. Toured the Voice of Prophecy studios and offices at Glendale, Calif. as well as those of the Faith for Today while they were still located at Carle Place, Long Island, New York.

P47 __________. Speaking as a summer camp worker at 25 sessions at the following locations: Wawona, Yosemite National Park, Calif., Greenhorn, Greenhorn Mountains, Calif. and Mt. Aetna in the Appalachians. Member for nine years of Troop 39 and later Ship 59 of the Boy Scouts of America, Berkeley, Calif. Staff member for 13 years of the Pathfinders youth group at the following locations: Santa Rosa, Chico, Modesto, Bakersfield and Burlingame, Calif.; Lincoln, Neb. and Baltimore, Md.

P48 __________. In visits and volunteer work in some cases at the following Dorcas/Welfare Centers: Berrien Springs, Michigan, Omaha, Neb., Salinas, Calif. and Berkeley, Calif. as well as other church centers.

P49 __________. Speaking as a church youth worker in California, Nebraska, Michigan, Arkansas and Maryland, having worked with all age groups from five year olds to college.

P50 __________. Personal observations at each of the centers mentioned in Michigan, Nebraska, Iowa and California.

P51 Price, Nelson C. *North Bay PACE Center Annual Report 1969-1970*. Napa, Calif.: The Center, 1970.

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R1 Rajpal, Puran L. "Relationship Between Expenditures and Quality Characteristics of Education in Public Schools," *Journal of Educational Research*, Vol. 63, No. 2 (Oct. 1969).

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R6 Reller, Rheodore L. "The Characteristics of a Desirable Intermediate Unit," *School Board Journal*, Vol. CXXX, No. 2 (Aug. 1954).

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R8 "Renaissance for Rural Schools," Education U.S.A., May 18, 1970.

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R10 Research in Education, a monthly journal indexing documents of the Educational Research Information Center, commonly known as ERIC. Washington, D.C.: U.S. Office of Education.

R11 Richardson, Gail Lee. Criteria for Establishing Guidelines for Educational Cooperative Service Units in the State of Illinois. A doctoral thesis at Indiana University, 1966.

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R13 Rafferty, Max Lewis. Suffer Little Children. New York: Devin-Adair, 1962.

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R18 Rosander, Gerald Arthur. The Future Role, Function, and Organization of the California Intermediate Unit in Selected Areas of Service. A doctoral thesis at the University of Southern California, 1966.

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S10 Saylor, Galen, past president of the Association of Supervision and Curriculum Development and professor, University of Nebraska in comments in a class on secondary curriculum at the University of Nebraska, fall 1968.

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Y

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Z1 Zahorik, John A. "Individualized Instruction and Group Instruction: A Case Study," *The Journal of Educational Research*, Vol. 62, No. 10 (July-Aug. 1969).

Z2 Zimmerman, Frederick L. and Mitchell Wendall. *The Law and the Use of Interstate Compacts*. Chicago: The Council of State Governments, 1961.

CURRICULUM VITAE OF RICHARD KEITH POWELL

ACADEMIC BACKGROUND

Graduate of the Academic Curriculum, Golden Gate Academy, Oakland, California

Bachelor of Science, Pacific Union College, Angwin, California
  Major: Industrial Arts (With Agriculture)
  Minors: Religion and Secondary Education

Master of Arts in Religion, Seventh-day Adventist Theological Seminary, Andrews University, Berrien Springs, Michigan
  Major: Bible and Systematic Theology
  Minor: Practical Theology

Master of Arts, Pacific Union College, Graduate School, Angwin, California
  Major: Educational Administration and Supervision

Additional Graduate Study:
- Loma Linda University, Loma Linda, California
  - Health education, Alcohol and drug education
- California State University at San Jose, San Jose, California
  - Educational media (Library science and audiovisual education)
- University of Iowa, Iowa City, Iowa
  - Educational media, professional education
- University of Nebraska at Lincoln, Lincoln, Nebraska
  - Educational media, professional education
- University of South Africa (D.Ed.)
  - Professional education

CREDENTIALS

Professional Secondary Credentials for teaching in Bible, Industrial Arts and Agriculture, Seventh-day Adventist school system

Standard Teaching Credential, Specialization in Secondary Teaching
  Covering elementary through junior college in librarianship, State of California (Life Credential)

General Secondary Credential, State of California

Standard Teaching Credential, Elementary, State of California

MEMBERSHIPS (Current--Professional)

Michigan Library Association
Michigan Association for Media in Education

Michigan Assn. for Supervision & Curriculum Development
Rural Education Association
Council of Educational Facility Planners, International (Elected)
Association for Educational Communications and Technology
Michigan Academy of Science, Arts and Letters

LISTINGS

Dictionary of International Biography (12th ed.)
Who's Who in the Midwest, 13th edition
Men of Achievement, 1973 edition (1st ed.); 3rd edition
Intercontinental Biographical Association, 1974
International Who's Who in Community Service

PUBLICATIONS

A co-author of the following:

- Spiritual Learnings in Science (wrote physical science sections)
- Evaluative Criteria for S.D.A. Elementary Schools and Junior Academies (wrote sections on facilities, materials and services)
- Health Education: Tobacco, Narcotics, Alcohol (Wrote sections on sociological, criminological and economic effects, as well as overall assistance)

PROFESSIONAL EDUCATIONAL EXPERIENCE

Teacher-Principal (Upper grades), Hot Springs Jr. Academy, Hot Springs, Arkansas

Teacher-Principal (Upper grades), Chico S.D.A. School, Chico, California

Teacher (grades 7-8), Edgecombe Jr. Academy, Baltimore, Maryland

Teacher (grades 7-8, some 6, 9, 10) Bakersfield Jr. Academy, Bakersfield, California

Teacher (7, 8, some 6), Modesto Union Elementary School, Modesto, California

Teacher (grades 9-10), Redwood Empire Jr. Academy, Santa Rosa, California

Teacher (grade 8), Loma Linda Union Academy, Loma Linda, California

Teacher-Principal (grades 3-5, later 6-8, some 1, 2), Burlingame S.D.A. School, Burlingame, California

Teacher-Principal (Upper grades), Salinas-Monterey Union School, Salinas, California

Teacher, Asst. Principal, Librarian, Alta Vista School, San Jose, California

Instructional Television Coordinator, Nebraska Educational Television Council for Higher Education and Union College, Lincoln, Nebraska

Assistant Librarian, Assistant Professor of Education, Director of the Teaching Materials Center, Andrews University, Berrien Springs, Michigan

PROFESSIONAL MINISTERIAL EXPERIENCE

The writer did ministerial work concurrent with his educational work. This was done under either the ministerial license or missionary credential.

Chico and Los Molinos, California---mostly preaching
Baltimore, Maryland---youth work
Essex, Maryland---general ministerial work
Bakersfield, California---youth work
Modesto, Hughson, Oakdale, California---mostly preaching, youth work
Santa Rosa, California---mostly youth work, some preaching
Burlingame, California---youth work
Salinas, California---youth work
San Jose, California---youth work, single adults
Lincoln, Nebraska---youth work
Berrien Springs, Michigan---youth work, single adults

RELATED SUMMER AND PARTTIME WORK

Auxiliary colporteur Leader (religious magazine selling--supervising youth)
Hot Springs, Arkansas
Baltimore, Maryland

Summer camp worker
Division leader
Counselor
Construction
Hike leader
Craft teacher
Director nature program
Work crew coordinator
Game organizer
Pool maintenance
General Maintenance
Roving counselor
Mt. Aetna, Maryland
Wawona, Yosemite, California
Greenhorn Mts., California

Hospital worker
Washington, D.C.---General hospital work, kitchen, psychiatric, elevators
Bakersfield, California---surgical orderly
Iowa City, Iowa-----floor orderly (eye, ear, nose and throat)

Laboratory assistant, University of California
Albany, California---Entomology, beneficial insect research

Grounds work and landscaping
Berkeley, California---City of Berkeley Park Dept.
Angwin, California---Pacific Union College
Berkeley, California---Independent work

Driving

Washington, D.C.---Taxi cab driver
Baltimore, Maryland---bus driving
Santa Rosa, California---bus driving
California---moving van
Bakersfield, Calif.--bus driving
Modesto, Calif.---bus driving
Wawona, Calif.---bus & truck
Oakland, Calif.---truck driving

Drafting and art work

Berkeley and Oakland, Calif.---Architectural drafting
Angwin, California---architectural and landscape drafting
Santa Rosa, California---architectural drafting
Here and there---art work

Custodial work

Berkeley, California---school janitor
Berkeley, California---church custodian
Various schools---assist with janitor work
Berkeley and Oakland, Calif.---independent janitor work

Laundry

Oakland, California---commercial laundry--tumbler and dryer machines out-of-town delivery and pick-up

Woodworking

Berkeley, California---lathe and swing cut-off saw operator

Office filing

Oakland, California---X-ray filing, construction of shelving

Farm labor

Angwin, California---farmhand, construction
Here and there---fruit and vegetable picking

CHURCH AND YOUTH CO-CURRICULAR ACTIVITIES

Pathfinders - a youth organization for the 10 to 14 year old age group.

Chico, California	Director
Baltimore, Maryland	Deputy director
Kern County, California	Regional director
Bakersfield, California	Director, deputy director
Modesto, California	Counselor
Santa Rosa, California	Director
Burlingame, California	Deputy director
Lincoln, Nebraska	Director

Youth Activities (M.V. Society) - a youth group for high school age youth.

Baltimore, Maryland	Associate superintendent
Kern County, California	Vice-President of the Region
Modesto-Salida, California	Associate and superintendent

Boy Scouts of America
Troop 39, Berkeley, California and in the Sea Scouts, Ship 59, Berkeley, California

Sabbath School - weekend religious education endeavor of the church:

Baltimore, Maryland	Superintendent of the Youth Division
Modesto, California	Superintendent of the Earliteen Division
Burlingame, California	Superintendent of the Junior Division
Burlingame, California	Teacher, Adult Division
Salinas, California	Teacher, Adult Division
San Jose, California	Teacher, Adult Division

Adult Church Offices

Berrien Springs, Michigan	Teacher - Collegiate Division
Burlingame, California	Deacon
Salinas, California	Deacon
San Jose, California	Deacon
Ceres, California	Elder
Modesto, California	Secretary of Nominating Committee

COMMITTEE MEMBERSHIPS

Bakersfield, California	Building Committee for a gymnasium
Santa Rosa, California	Building Committee for classrooms
Modesto, California	Consultant with special emphasis upon interiors and offices
Lincoln, Nebraska	Alternate member of the Planning Board, Nebraska Educational Television Council for Higher Education
Lincoln, Nebraska	Curriculum Committee, Union College
Berrien Springs, Michigan	Curriculum and Instruction Committee, Department of Education, Andrews University
	Library Committee, Department of Education, Andrews University
	Film Evaluation Committee, Andrews University
	Academy Educational Specifications Committee, Sub-committee on Media Center
	NCATE Committee - Sub-committee on Facilities and materials
	Library Committee - Sub-committee on Selection for the Teaching Materials Center
Central California	Textbook previews

CONVENTION AND WORKSHOP ATTENDANCE

Atlantic City, New Jersey (national) American Assn. of School Admin.
Detroit, Michigan (national) Dept. of Audiovisual Instruction
Philadelphia, Pennsylvania (national) Assn. for Educational Communication and Technology
Chicago, Illinois (regional) Midwestern Library Conference

Grand Rapids, Michigan (state) Michigan Assn. for School Librarians and Michigan A.V. Association
Lansing, Michigan (state) Michigan Library Association
Detroit, Michigan (national) American Library Association
Grand Rapids, Michigan (state) Michigan Association for Media on Education

The count is lost of workshops attended in youth work, such as Pathfinders, Sabbath School, M.V. Society (high school age). These include at least six sessions at Asilomar, California; Berkeley, California, Hobergs Resort, California, Wawona, California, Takoma Park, Maryland. Additional workshops in health education, colporteur work etc. have been attended, such as Shreveport, La., Baltimore, Md., San Francisco, Calif. etc. Teacher's Conventions include sessions of from one to 10 days at the following locations:

Pacific Union College, Calif.
Fresno, California
Atlantic Union College, Mass.
Southwestern Union College, Tex.
Spencerville, Md.
La Sierra College, Calif.
San Jose, California
Wescoeville, Pennsylvania
Shelton, Nebraska
Soquel, California

Regattas, Campouts, Youth Fairs etc. include Yuba City, Ca., Turlock, Ca., Owens Valley, Ca., Richardson Bay, Ca., Woodland Acres, Neb., Fresno, Ca., Wawona, Ca., Soquel, Ca., Vallejo, Ca., Lodi, Ca., White Cloud, Ca., Hemet, Ca., Alameda Maritime Station, Ca., etc.

HOBBIES

Model railroading, stamp collecting, art collecting, art work, gardening, model making in general, record collecting and Hi Fi, photography and books (personal media collection larger than 90% of the Adventist academies)

SOCIAL ORGANIZATIONS

Mountain View, California	President of the Coterie Club
Berrien Springs, Michigan	President of local chapter of the Michigan Singles, previously Religious Vice-President.